

Annual Catalog
1920 - 1921



ANNOUNCEMENT
1921 - 1922

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1920

JULY

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UNIVERSITY CALENDAR

1921

Entrance examinations, etc.-----Monday-Tuesday, Sept. 19-20
Registration for autumn term--Wednesday-Saturday, Sept. 21-24
Autumn term begins, 8:00 a. m.-----Monday, Sept. 26
Thanksgiving holiday -----Thursday, Nov. 24
Registration for winter term -Thursday-Wednesday, Dec. 15-21
Autumn term ends, 5:00 p. m.-----Wednesday, Dec. 21

1922

Winter term begins, 8:00 a. m.-----Tuesday, Jan. 3
Registration for spring term-----Monday-Saturday, Mar. 13-18
Winter term ends, 5:00 p. m.-----Saturday, Mar. 18
Spring term begins, 8:00 a. m.-----Monday, Mar. 20
Easter vacation begins, 5:00 p. m.-----Thursday, Apr. 13
Easter vacation ends, 8:00 a. m.-----Tuesday, Apr. 18
Spring term ends, 5:00 p. m.-----Saturday, June 10
Baccalaureate sermon -----Sunday, June 11
Commencement day -----Tuesday, June 13
Registration for summer term--Wednesday-Saturday, June 14-17
Summer term begins, 8:00 a. m.-----Monday, June 19

BOARD OF TRUSTEES

<i>The Governor of Arkansas</i>	<i>Ex-Officio</i>
THOMAS C. McRAE, Little Rock.	
<i>The State Superintendent of Public Instruction</i>	<i>Ex-Officio</i>
JOHN L. BOND, Little Rock.	

	<i>Expiration of Term</i>
Z. LYTTON REAGAN, Rogers.....	1921
A. B. BANKS, Fordyce	1923
FRANK PACE, Little Rock.....	1923
JAMES D. HEAD, Texarkana.....	1925
JOE K. MAHONY, El Dorado.....	1925
HARRY L. PONDER, Walnut Ridge.....	1925
HUGH A. DINSMORE, Fayetteville.....	1927
JAMES K. BROWNING, Piggott.....	1927

OFFICERS

Chairman	GOVERNOR THOMAS C. McRAE
Secretary and Auditor.....	WILLIAM H. CRAVENS, Fayetteville

COMMITTEES

Executive Committee—Governor McRae, Chairman; Messrs. Mahoney, Head and Dinsmore.

Finance Committee—Mr. Banks, Chairman; Messrs. Head and Dinsmore.

Teachers' Committee—Mr. Bond, Chairman; Messrs. Mahoney and Head.

College of Agriculture—Mr. Browning, Chairman; Messrs. Ponder and Pace.

Buildings and Grounds—Mr. Dinsmore, Chairman; Messrs. Ponder and Browning.

Branch Normal School—Mr. Bond, Chairman; Messrs. Banks and Mahoney.

Medical College—Mr. Pace, Chairman; Messrs. Bond and Head.

Board of Control of the Agricultural Experiment Station—The Committee on the College of Agriculture, the President of the University, and the Director of the Experiment Station.

Committee on Agricultural Extension—Mr. Browning, Chairman; Messrs. Pace and Banks.

OFFICERS OF ADMINISTRATION

Note.—The first date after a title indicates the year of appointment to present rank; the second, the year of first appointment to any position in the University. Where they coincide, only one date is given.

- JOHN CLINTON FUTRALL, B. A., (University of Virginia), M. A. (University of Virginia), LL. D. (Tulane University). *President*, 1913, 1894.
- WILLIAM NATHAN GLADSON, B. M. E., (Iowa State College), E. E. (Iowa State College), Ph. D. (McLemorsville College). *Vice-President and Dean of the College of Engineering*, 1914, 1894.
- GEORGE WESLEY DROKE, B. A. (University of Arkansas), M. A. (University of Arkansas), LL. D. (Hendrix College). *Dean of the College of Arts and Sciences*, 1915, 1880.
- JAMES RALPH JEWELL, B. A. (Coe College), M. A. (Coe College), Ph. D. (Clark University). *Dean of the College of Education*, 1913.
- BRADFORD KNAPP, B. S. (Vanderbilt University), LL. B. (University of Michigan), D. Agr. (Maryland Agricultural College). *Dean of the College of Agriculture and Director of the Agricultural Experiment Station*, 1920.
- MARTIN NELSON, B. S. A. (University of Wisconsin), M. S. (University of Wisconsin). *Vice-Dean of the College of Agriculture and Vice-Director of the Agricultural Experiment Station*, 1920, 1908.
- ARTHUR MCCracken HARDING, B. A. (University of Arkansas), M. A. (University of Chicago), Ph. D. (University of Chicago). *Director General Extension Division*, 1919, 1905.
- PEARL MARION FEARS, *Acting Registrar*, 1919, 1918.
- JOHN CLARK JORDAN, B. A. (Knox College), M. A. (Columbia University), Ph. D. (Columbia University). *Examiner*, 1919, 1918.
- WILLIAM HAMPTON CRAVENS, *Auditor and Secretary of the Board of Trustees*, 1911.
- MILTON T. PAYNE, *Director Agricultural Extension Division*, 1920.
- JULIA RAMSEY VAULX, B. A. (University of Arkansas), M. A. (Cornell University). *Librarian*, 1914.
- MARY ANN DAVIS, *Dean of Women*, 1911.
- GEORGE WILLIAMS McLAREN, D. D. S. (University of Pittsburgh). *Director of Outdoor Athletics*, 1920.
- DOROTHY NATION, R. N. *Superintendent of the Infirmary*, 1920.
- FREDERICK GOTTLIEB BAENDER, B. M. E. (Iowa State University), M. M. E. (Cornell University). *Superintendent of Mechanic Arts*, 1916.
- GILBERT HAVEN CADY, B. A. (Northwestern University), M. A.

- (Northwestern University), Ph. D. (University of Chicago). *Curator of the Museum*, 1920.
- BOLLING JAMES DUNN, B. A. (Bethel College), M. A. (Bethel College), LL. D. (Ouachita College). *Assistant Librarian*, 1917, 1894.
- JIM P. MATHEWS, B. A. (University of Arkansas). *Assistant Librarian*, 1917.
- BEATRICE SIMS, B. A. (University of Missouri). *Assistant Librarian*, 1920.
- ETHA GRACE JOHNSON, *Secretary to the President*, 1918.
- MRS. FANNIE S. PARK, *Superintendent of Carnall Hall*, 1907.
- MRS. CHARLES WINKELMAN, *Superintendent of the Men's Dormitories*, 1919.
- CHARLOTTE B. JACKSON, B. A. (Agnes Scott College). *Y. W. C. A. Secretary*, 1920.
- WILLIAM S. GREGSON, *Y. M. C. A. Secretary*, 1919.

FACULTY

Note.—The first date after a title indicates the year of appointment to present rank; the second, the year of first appointment to any position in the University. Where they coincide, only one date is given.

†Member of Experiment Station staff.

PROFESSORS, ASSOCIATE AND ASSISTANT PROFESSORS

- FREDERICK HENRY HERBERT ADLER, B. A. (Ohio State University), M. A. (University of Illinois), Ph. D. (University of Illinois). *Professor of German* (see also *Department of English*), 1919.
- FREDERICK GOTTLIEB BAENDER, B. M. E. (University of Iowa), M. E. (Cornell University). *Professor of Heat Power Engineering*, 1916.
- †WILLIAM J. BAERG, B. A. (University of Kansas). *Professor of Entomology*, 1920, 1918.
- PAUL LEVERN BAYLEY, A. B. (University of Arkansas), A. M. (University of Illinois). *Assistant Professor of Physics*, 1920.
- †WILLIAM LÉSLIE BLEEKER, D. V. M. (Ohio State University). *Professor of Bacteriology and Pathology*, 1919, 1918.
- JOHN THEODORE BUCHHOLZ, B. S. (Iowa Wesleyan College), B. A. (University of Iowa), M. S. (University of Chicago), Ph. D. (University of Chicago). *Professor of Botany*, 1919.
- GILBERT HAVEN CADY, B. A. (Northwestern University), M. A. (Northwestern University), Ph. D. (University of Chicago). *Professor of Geology and Mining Engineering*, 1920.
- JOSEPH I. CHESKIS, B. A. (Odessa, Russia), M. A. (Harvard), Ph. D. (Harvard). *Assistant Professor of Romance Languages*, 1920.
- NELS ANDREW NELSON CLEVEN, Ph. B. (University of Chicago), B. Ed. (University of Chicago), Ph. D. (University of

dent upon entrance and at such intervals throughout the year as may seem necessary. The work is conducted in the indoor gymnasium and during suitable weather on outdoor courts. The uniform worn consists of a white middy-blouse, black serge bloomers, and gymnasium shoes purchased at the University. The courses in physical education are required of all women students during their Freshman and Sophomore years. A maximum of nine credit hours may be used toward graduation.

111 (112) (113). ELEMENTARY PHYSICAL EDUCATION.—General gymnastic work, games, and lectures on personal hygiene. Two hours.

MISS WILLIAMS.

211 (212) (213). INTERMEDIATE PHYSICAL EDUCATION.—(1) General gymnastic work, one hour; (2) athletic games, one hour; (3) æsthetic and folk dancing, one hour. Students may elect either (1) and (2), or (1) and (3).

MISS WILLIAMS.

511 (512) (513). ADVANCED GYMNASTICS.—Advanced gymnastic work; fencing, field sports, and outdoor games. Two hours.

MISS WILLIAMS.

514 (515) (516). ADVANCED DANCING.—Two hours.

MISS WILLIAMS.

517 (518) (519). THE TEACHING OF PHYSICAL EDUCATION.—Theoretical and practical work, designed for prospective public school teachers. Two hours.

MISS WILLIAMS.

PHYSICS

PROFESSOR RIPLEY, ASSISTANT PROFESSOR BAYLEY

The courses in this department are designed (1) for students in the courses in engineering, agriculture, chemistry, and home economics, as part of the required curriculums and (2) for students in other courses who desire a general knowledge of the subject or who wish to prepare for the study of law or medicine, or for teaching or graduate work.

Requirements for a Major in Physics: forty-five term hours. Students who are preparing to teach physics in the secondary schools should complete as a minimum requirement courses 141-143, 231-233, and 517-519.

141 (142) (143). EXPERIMENTAL PHYSICS.—A non-mathematical course in physics designed for students who desire to secure a general knowledge of the subject and of its application to everyday life. The experimental and practical phases are stressed. Open only to students offering no entrance credit in physics. Lec-

- HENRY GUSTAVE HOTZ, Ph. B. (University of Wisconsin), M. A. (University of Wisconsin), Ph. D. (Columbia University). *Professor of Secondary Education*, 1919.
- JAMES RALPH JEWELL, B. A. (Coe College), M. A. (Coe College), Ph. D. (Clark University). *Professor of Education*, 1913.
- VIRGIL LAURENS JONES, B. A. (University of North Carolina), Ph. D. (Harvard University). *Professor of English*, 1915, 1911.
- ARTHUR MELLVILLE JORDAN, B. A. (Randolph-Macon College), M. A. (Trinity College, North Carolina), Ph. D. (Columbia University). *Professor of Psychology*, 1919, 1914.
- JOHN CLARK JORDAN, B. A. (Knox College), M. A. (Columbia University), Ph. D. (Columbia University). *Professor of English and Public Speaking*, 1918.
- BRADFORD KNAPP, B. S. (Vanderbilt University), LL. B. (University of Michigan), D. Agr. (Maryland Agricultural College). *Professor of Agricultural Economics*, 1920.
- ANTONIO MARINONI, B. A. (Desenzano, Italy), M. A. (Yale University). *Professor of Romance Languages*, 1906, 1905.
- †RALPH HEDGES MASON, B. S. A. (University of Missouri). *Assistant Professor of Animal Husbandry*, 1918.
- ERNEST BERTRAM MATTHEW, B. A. (Kansas State Normal School), M. S. (University of Wisconsin). *Professor of Agricultural Education*, 1919, 1918.
- A. D. MCNAIR. *Professor of Agricultural Economics*, 1920.
- †MARTIN NELSON, B. S. A. (University of Wisconsin), M. S. (University of Wisconsin). *Professor of Agronomy*, 1918, 1908.
- †LYNN WESLEY OSBORN, B. S. A. (Iowa State College). *Assistant Professor of Agronomy*, 1916, 1913.
- ✓ STELLA PALMER, B. S. (University of Alabama), M. A. (Columbia University). *Professor of Home Economics and of Home Economics Education*, 1918.
- FRANK WELLBORN PICKEL, B. A. (Furman University), M. S. (University of South Carolina), M. S. (University of Chicago). *Professor of Zoology*, 1919, 1899.
- SAMUEL RALPH POWERS, B. A. (University of Illinois), M. A. (University of Minnesota). *Professor of Education and Director of the Training School*, 1920.
- †CHARLES WORKMAN RAPP, B. S. (Oklahoma A. and M. College). *Assistant Professor of Horticulture*, 1920.
- †JOHN WILLIAM READ, B. S. A. (University of Missouri), M. S. (University of Missouri). *Professor of Agricultural Chemistry*, 1918.
- GILES EMMETT RIPLEY, B. A. (Purdue University), M. S. (Purdue University). *Professor of Physics*. 1908.
- †HARRY ROBERT ROSEN, B. S. (Pennsylvania State College), M.

- S. (University of Wisconsin). *Assistant Professor of Plant Pathology*, 1918.
- †WARD HARRISON SACHS, B. S. (Illinois Wesleyan College), M. S. (University of Missouri). *Associate Professor of Agronomy*, 1919.
- JAMES MURRAY SHEEHAN, B. A. (Miami University), M. A. (Harvard University). *Associate Professor of Journalism*, 1920.
- WARREN RUSSELL SPENCER, B. A. (University of Indiana), B. S. C. E. (Rose Polytechnic Institute). *Assistant Professor of Civil Engineering*, 1919.
- WILLIAM BOYD STELZNER, B. E. E. (University of Arkansas), E. E. (University of Arkansas). M. S. (Ohio State University). *Professor of Electrical Engineering*, 1919, 1909.
- GEORGE PATRICK STOCKER, B. S. in C. E. (University of Wisconsin). *Professor of Civil Engineering*, 1919.
- †SAMUEL RODMAN STOUT, B. S. A. (University of Arkansas). *Assistant Professor of Animal Husbandry*, 1919, 1916.
- HENRY HARRISON STRAUSS, B. A. (Wooster College), M. A. (Tulane University). *Professor of Ancient Languages*, 1914, 1913.
- †BARNETT SURE, B. S. (University of Wisconsin), M. S. (University of Wisconsin), Ph. D. (University of Wisconsin). *Assistant Professor of Agricultural Chemistry*, 1920.
- †JOSEPH EARLE SYFERD, D. V. M. (Ohio State University). *Assistant Professor of Veterinary Science*, 1919.
- DAVID YANCEY THOMAS, B. A. (Emory College), M. A. (Vanderbilt University), Ph. D. (Columbia University). *Professor of History and Political Science*, 1912, 1907.
- HENRY DOUGHTY TOVEY, B. Mus. (Knox College), Mus. D. (Knox College). *Professor of Theory of Music and Piano*, 1908.
- †JACOB OSBORN WARE, B. S. A. (North Carolina State College), M. S. (North Carolina State College). *Assistant Professor of Agronomy*, 1920.
- BIRTON NEILL WILSON, B. S. M. E. (Georgia School of Technology), M. E. (University of Michigan), M. M. E. (Cornell University). *Professor of Experimental Engineering and Drawing*, 1917, 1896.

INSTRUCTORS AND ASSISTANTS

- †RUSSELL HAYDEN AUSTIN, B. S. A. (University of Arkansas). *Instructor in Agronomy*, 1918.
- ✓MARY CUMMINGS BATEMAN, *Instructor in Voice*, 1905.
- LE ROY H. BERARD, Ph. B. (University of Chicago), M. A. (University of Chicago). *Instructor in English*, 1920.
- CECIL CLYDE BLAIR, B. A. (University of Arkansas). *Instructor in Economics and Sociology*, 1920.
- ✓LEORA BLAIR, B. A. (University of Arkansas). *Instructor in Education*, 1920.

- MAUDE E. BUNKER, Ph. B. (University of Wisconsin). *Instructor in Education*, 1920.
- RUTH MARY COWAN, B. S. (University of Chicago). *Instructor in Home Economics*, 1918.
- WILLIE VANDEVENTER CROCKETT. *Instructor in Expression*, 1905.
- MARY ANN DAVIS. *Instructor in English*, 1915.
- JAMES DINWIDDIE. *Instructor in Shopwork and Foreman of the Shops*, 1916.
- ELIZABETH JACKSON GALBRAITH, B. A. (West Tennessee Christian College.) *Instructor in Art*, 1906.
- JACK MURRAY GREATHOUSE, Sergeant, U. S. Army. *Instructor in Military Art*, 1919.
- DAVID CLINTON HANSARD. *Assistant in Violin*, 1916.
- MARY GARNETT HARGIS. *Instructor in Romance Languages*, 1911, 1908.
- EUGENE GUTHRIE HASSELL, B. A. (University of Arkansas). *Assistant in Piano*, 1920.
- JEAN HILL, B. A. (Tulane University). *Instructor in Home Economics*, 1919, 1918.
- JEWELL CONSTANCE HUGHES, B. A. (University of Arkansas), M. A. (University of Missouri). *Instructor in Mathematics*, 1918.
- ALLAN SPARROW HUMPHREYS, B. S. (Drury College), M. S. (University of Pennsylvania). *Instructor in Chemistry*, 1918.
- †RUSSELL AUBREY HUNT, B. S. A. (University of Kentucky). *Instructor in Animal Husbandry*, 1919.
- GUY BRADIN IRBY, B. M. E. (University of Arkansas). *Instructor in Mechanical Engineering*, 1920.
- JAMES A. JONES. *Instructor in Foundry*, 1919.
- RUSSELL L. KIKER, Sergeant, U. S. Army. *Instructor in Military Art*, 1921.
- RALPH E. KING, B. E. E. (State University of Iowa). *Instructor in Electrical Engineering*, 1921.
- JOHN LUKOWSKI, Sergeant, U. S. Army. *Instructor in Military Art*, 1921.
- HOWARD WALDO MCKINLEY, B. S. in E. E. (Colorado Agricultural College). *Instructor in Electrical Engineering*, 1921.
- OWEN MITCHELL. *Assistant in Theory of Music and Piano*, 1913.
- THOMAS BARTLETT MULLIN, B. S. (Queens University, Ontario), M. S. (University of Wisconsin). *Instructor in Civil Engineering*, 1920.
- CLARA ROWENA SCHMIDT, B. S. E. (University of Missouri). *Instructor in Home Economics*, 1920.
- WARD HASTINGS TAYLOR, B. A. (University of Illinois), M. A.

- (University of Illinois). *Instructor in Mathematics*, 1920.
 WILLIAM LEWDY TEAGUE, B. E. E. (University of Arkansas). *Instructor in Electrical Engineering*, 1919.
 ANNA BELLE THOMPSON, B. S. E. (University of Missouri). *Instructor in Home Economics*, 1920.
 A. J. THOMPSON. *Instructor in Forge Work*, 1921.
 HARVEY McCORMICK TRIMBLE, B. S. (University of Michigan). *Instructor in Chemistry*, 1918.
 LILLIAN E. WILLIAMS. *Instructor in Charge of Physical Education for Women*, 1918.
 ELIZABETH PURNELL WILSON. *Instructor in Education*, 1919.

STANDING COMMITTEES OF THE UNIVERSITY SENATE, 1920-1921

- Accredited Schools*—Professors Hotz, Dvorachek, Palmer, J. C. Jordan, Spencer.
Advisers—Deans Knapp, Gladson, Jewell, Droke.
Athletics—Professors Wilson, Marinoni, Stout, President Futtrall, Director McLaren.
Catalog—Professors Adler, Hotz, Stocker, Baerg, Sheehan, the Registrar.
Commencement—Professors Ripley, Tovey, Holcombe, Powers, Mrs. Crockett.
Discipline and Attendance—Professors Gladson, Strauss, Dvorachek, A. M. Jordan, Miss Davis.
Graduate Study—Professors Jewell, Elliott, Hancock, Hale, Buchholz.
Honorary and Higher Degrees—Professors Droke, Read, Pickel, Adler, Nelson.
Intercollegiate Debating—Professors J. C. Jordan, Jones, Thomas, Mr. Blair.
Library—Professors Thomas, Elliott, Jewell, Stelzner, Miss Vaulx.
Research—Professors Hale, Gladson, Nelson, Elliott, A. M. Jordan, Buchholz.
Schedule—Professors Wilson, Cooper, A. M. Jordan, Hancock, the Registrar.
Statistics—Professors Baender, Bleecker, Palmer, Clevon, Miss Galbraith.
Student Affairs—Professors Gladson, Jones, Hale, Holcombe, Miss Davis.
Student Organizations—Professors Stelzner, Cooper, Hastings, Clevon.
Student Publications—Professors Ripley, Stocker, Sheehan, Halpine, Hastings.

GENERAL INFORMATION DIVISIONS

The University of Arkansas is composed of the following divisions: The College of Arts and Sciences, the College of Education, the College of Engineering, the College of Agriculture, the Agricultural Experiment Station, and the University Extension Division, including extension in agriculture and home economics, and general extension, at Fayetteville; the College of Medicine, at Little Rock; and the Branch Normal College, at Pine Bluff.

LOCATION

Fayetteville is located in Washington County, in the northwestern part of the state, in the heart of the Ozark Mountains. The elevation of the town is about 1,500 feet. The surroundings are of great natural beauty, and the climate of the region is excellent.

Fayetteville may be reached both from the north and from the south by the Texas branch of the St. Louis and San Francisco ("Frisco") Railroad. The Muskogee division communicates with the west.

The moral and religious conditions of the community are most favorable. There are twelve churches in the town, representing eleven denominations. The pastors of these churches actively interest themselves in the moral and spiritual welfare of the students.

HISTORY

The University of Arkansas owes its origin to an Act of Congress, approved July 2, 1862, providing that public lands should be granted to several states, to the amount of "thirty thousand acres for each senator and representative in Congress," from the sale of which there should be established a perpetual fund, "the interest of which shall be inviolably appropriated by each state, which may take and claim the benefit of this Act, to the endowment, support, and maintenance of at least one college, where the leading objects shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislature of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." This act forbids the use of any portion of the aforesaid fund, or the interest thereon, for the purchase, erection, or maintenance of any building or buildings. The states accepting the provisions of the act are required to provide for the construction and maintenance of the necessary buildings, and for the expenses of administration in carrying out the purposes of the act.

The general assembly of the state accepted the national law by passing an act, approved March 27, 1871, which provided for

the location, organization, and maintenance of the University of Arkansas. Fayetteville, Washington County, was selected as the seat, and the institution opened on January 22, 1872.

The Experiment Station owes its origin to an act of Congress of March 2, 1887 (the Hatch Act), under which the University receives \$15,000 annually for the maintenance of the Experiment Station "to aid in acquiring and diffusing among the people useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." In 1906 Congress passed an act increasing this appropriation by the sum of \$5,000 the first year, and providing for an additional increase of \$2,000 per annum, until such increased appropriation shall reach \$15,000 annually.

Under an act of Congress, approved August 30, 1890, the University receives \$25,000 annually, "to be applied only to instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural, and economic science with special reference to their application to the industries of life."

On March 4, 1907, Congress passed an act increasing this appropriation at the rate of \$5,000 per annum, until the total amount appropriated annually shall reach \$50,000.

RESOURCES

The University owns at Fayetteville equipment, buildings, and grounds estimated to be worth about \$950,000. The productive funds, derived entirely from federal land grants, amount to \$132,666. The University receives annually from the federal government the sum of \$36,363 for the support of the Agricultural and Mechanical college. It also receives annually from the federal government \$30,000 for the Agricultural Experiment Station. For the year 1919-1920 it received a state appropriation of approximately \$232,000, exclusive of extension work in agriculture and home economics. For the latter purpose it received during the same period from the state and federal governments an appropriation of approximately \$203,192. The income from endowment was \$6,903.34.

The total receipts of the University for the year ending June 30, 1920, were \$606,507. State appropriations were apportioned as follows: University, \$176,000; Agricultural work, \$56,000; Extension and Home Economics, \$123,970; Morrill fund for support of the Agricultural and Mechanical college, \$36,363; Experiment Station, \$30,000. The income from student fees was \$22,639. Miscellaneous receipts were \$25,444.71.

The total expenditures for all purposes for the year ending June 30, 1920, were \$591,351.00. This sum was expended approximately as follows: For work with the students at the University, etc., \$332,159; for Extension work in agriculture and home

economics, \$203,192; for Agricultural Experiment Station work, \$56,000.

BUILDINGS AND EQUIPMENT

The campus comprises a tract of land of about one hundred twenty acres including some fifteen buildings. The University has its own heating plant and is supplied with electric light and water from the city plants.

DORMITORIES

Three dormitories are provided for the housing of men students. *Buchanan Hall*, a three-story brick structure, contains about forty student rooms. *Hill Hall*, likewise a three-story brick building, contains about twenty rooms for students, besides a recreation hall, dining-hall, kitchen, and store-room. *Gray Hall*, two stories in height and built of brick, accommodates about one hundred students. A reservation fee of five dollars is charged, but no further fee for rent. All rooms are provided with one bedstead, mattress, table, and two chairs; all other furnishings are supplied by the occupant.

The dormitory for young women, *Carnall Hall*, is an attractive three-story brick structure and contains rooms sufficient for about one hundred students, with parlors, a dining-hall, and a recreation room. See preceding paragraph for information concerning furnishings and fees.

UNIVERSITY HALL

This structure, erected in 1872, is the old "main building." It is five stories in height and forms three sides of a quadrangle. Its seventy rooms serve as the offices of administration, and the class-rooms, besides some laboratories, of the College of Arts and Sciences.

Library. The main library contains about 31,000 volumes, of which about 7,000 are government documents. The collection of reference works includes 2,000 bound periodicals and 102 current periodicals. In University Hall are found also the libraries of the College of Agriculture, and of the departments of Geology, Biology, and Mathematics. Other departmental libraries are housed in the Chemistry, Engineering, and Physics buildings. These separate libraries contain approximately 15,000 bound and 500 unbound volumes.

The Biological Laboratories. The laboratories for Botany and Zoology have accommodations for about thirty-six students each and are supplied with equipment fully adequate for the courses offered.

The Geological Laboratory is equipped with adequate material and apparatus for all courses offered in geology and mineralogy.

The Museum contains various collections (mineral, petrographic, paleontological, botanical, zoological, relief maps) made with the view of facilitating instruction in biology and geology.

Art Studio. The studio is equipped for work in design, drawing, and painting.

The *practice rooms* of the Department of Music are located in University Hall.

Women's Gymnasium. The gymnasium for the women students is equipped with modern apparatus, and provided with lockers, dressing-rooms, and shower-baths.

Armory. The armory, with the usual military equipment, including band instruments, occupies a large room in the basement of the north wing.

Book Store. The book-store contains a complete line of textbooks and supplies.

CHEMISTRY HALL

This building contains laboratories for quantitative and qualitative analysis, for organic and physical chemistry, for assaying, besides balance-room, a library, a large lecture-room, and a general laboratory for beginning students.

AGRICULTURAL HALL

This building contains various offices and laboratories of the College of Agriculture. The *Cotton Laboratory* is equipped for a practical and technical study of cotton and cotton fiber. The *Field Crops Laboratory* has all necessary apparatus and materials used in the study of types, strains, and quality; and in the scoring and judging of staple and miscellaneous crops. The *Soils Laboratory* is equipped for the study of the formation, composition, and character of soils, with a reference to their fertility adaptability, and the treatment affecting their productivity and conservation.

EXPERIMENT STATION BUILDING

The *Agricultural Chemistry Laboratory* is equipped with all necessary materials and apparatus used in the field of Analytical Chemistry as applied to Agriculture. The *Bacteriology Laboratory* is a research laboratory, equipped for the study and preparation of cultures of microorganisms, serums, and vaccines. Another Bacteriology Laboratory, for class work, is located in the Dairy Building. The *Plant Pathology Laboratory* has a complete equipment used in the study of mycology and plant diseases. The *Horticulture Laboratory* has all such machinery and apparatus as is used in the study of the various phases of Horticulture. The *Greenhouse* offers good facilities for laboratory and research work.

ENTOMOLOGY BUILDING

The *Entomology Laboratory* is well equipped with instruments and apparatus used in the study of insect anatomy and development, as well as the control measures for injurious species. The new bungalow-type insectary offers excellent facilities for rearing insects under natural conditions.

DAIRY BUILDING

The *Dairy Laboratory* has a complete line of standard dairy machinery. A modern creamery is operated throughout the year.

Student laboratories are equipped with all apparatus for the study of sanitary and standard home dairying.

ANIMAL HUSBANDRY BARN

Modern barns for the various types of livestock are available for purposes of demonstration and study. Livestock—various breeds of horses, cattle, goats, sheep, swine, and poultry—forms the basis of instruction in animal husbandry.

PEABODY HALL

Peabody Hall is used exclusively by the College of Education. It is a modern fireproof building, containing about thirty rooms for class work, various offices, a large assembly room, a manual training shop, home economics laboratories, and rooms in which the college classes in Education and Psychology meet.

University High School. Any pupil residing in the State of Arkansas is eligible for admission to the University High School, provided he has exhausted the school privileges of his home community. Such pupils must be at least fifteen years of age and of good moral character.

Home Economics Laboratories: Practically all of one floor is occupied by the laboratories for cookery, sewing, millinery, and table service, and the reception room. The equipment in each laboratory is new and modern.

ENGINEERING HALL

Erected in 1904, this building contains the offices, recitation rooms, drawing rooms, and testing laboratories of the physics, and civil, electrical and mechanical engineering departments.

The Civil Engineering Testing Laboratory. The road materials testing equipment is complete for making all the standard tests as recommended by the U. S. Office of Public Roads. The cement and concrete testing equipment is sufficient for making all the standard tests in cement and on small specimens of concrete. The structural materials testing department is equipped for making tension, compression, and impact tests on small specimens of practically all structural materials. The hydraulic laboratory equipment, although rather limited, is sufficient to give practical demonstrations in connection with elementary hydraulics.

The Civil Engineering Instrumental Laboratory is located on the first floor. It is provided with all the necessary instruments for work in land, railroad and city surveying, practical astronomy, and office work. The equipment of field instruments has been so selected as to afford students the opportunity of becoming familiar with the instruments of the different manufacturers.

The Electrical Engineering Laboratories offer excellent facilities for experimental work. The main laboratory, east end of basement, is supplied with a variety of types and sizes of direct current and alternating current generators, motors, control equipment and instruments; storage batteries, converters and recti-

fiers, synchronous converters, transformers, condensers, inductances, etc. Adequate switchboards and wiring are provided for convenience in testing. A well equipped instrument and repair shop is maintained in connection with the laboratory.

The *Standardizing Laboratory* in the main laboratory is equipped with standards and precision instruments and is wired and arranged for facility in standardizing work.

The *Photometric Laboratory* has a standard photometer bar and accessories, several types of portable photometers, and lighting units and equipment.

The *Telephone Laboratory* has magneto and central energy switchboards complete, test lines, and numerous telephone and wireless instruments.

The *Experimental Engineering Laboratory* is equipped with steam and gasoline engines, condenser, boiler feed pumps, and other power plant equipment for conducting standard tests. In addition to the power plant equipment, the laboratory is provided with apparatus for fuel testing, oil testing, flue gas analysis, and for testing materials of construction.

MECHANICAL HALL

Mechanical Hall contains the machine shop, wood shop, and forge shop. The shops will accommodate about seventy-five students at one time. Adjoining on the east is a boiler room.

PHYSICS HALL

Physics Hall, built in 1917, is a two-story building containing ten rooms well arranged for lecture and laboratory work in physics. On the first floor are two laboratory rooms, a large lecture room, a store-room, and an office room. The second floor includes a large lecture room, a laboratory room, a photometric room, a work-shop room and a library. Concrete piers are provided for all delicate work in the laboratories and for the delicate balances. The equipment of apparatus is fairly complete and of sufficient variety and duplication to permit the instruction of large sections in the laboratories.

Y. M. C. A. HUT

A hut of the standard "D" type serves as headquarters for association activities and for various social gatherings.

INFIRMARY

The infirmary is in charge of a trained nurse. The building is furnished with open and private wards for men and women, and a well isolated ward for contagious cases.

ATHLETIC FIELD

Grounds for athletic sports contain the football gridiron, the baseball diamond, the quarter mile track, and facilities for basket ball, volley ball, and other games. Tennis courts are located in various places on the campus.

ADMISSION

GENERAL REQUIREMENTS

Admission to any college of the University of Arkansas may be obtained either by a certificate from an accredited high school or preparatory school, or by examination. For unconditional entrance, the candidate must be a graduate of an accredited four-year high school or preparatory school, and must have completed satisfactorily at least fifteen entrance units. When a candidate is deficient in not more than two units, he may be allowed conditional entrance, with the provision that all such deficiencies must be removed during the first year of his attendance at the University by offering University High School courses, Summer School courses, or University courses intended primarily for freshmen, in satisfaction of the deficiencies. If University courses are offered to remove entrance deficiencies, nine term hours of college work shall be equivalent to one entrance unit. A student who is deficient in more than two units and who has exhausted the school privileges of his home community may enter the University High School. See p. 16.

Any student who has completed fifteen or more units in acceptable courses in the high school, but who has attended high school less than four full years, shall be conditioned in two entrance units. These two condition units may be removed by making a passing grade in twelve hours of work during the first term of the freshman year; otherwise the student shall make up this condition in the manner described above. It should be understood that students who are admitted with conditions of more than one unit, as a rule, will find it necessary to attend one or more additional terms in order to meet the requirements for a degree.

ADMISSION BY EXAMINATION

Entrance examinations are offered at the University during the opening week of school. Students living at a distance from the University may secure special examinations to be conducted by the school principal or the county superintendent under conditions that will be indicated when the application is made. Requests for examinations must be mailed so as to reach the University Examiner not later than September 1.

ADMISSION BY CERTIFICATE

Class "A" Schools--All graduates of class A high schools and preparatory schools of this state are admitted to the freshman class of the University. This privilege will also be granted to all graduates of schools accredited by the Association of Colleges and Secondary Schools of the Southern States, or by the North Central Association of Colleges and Secondary Schools.

Class "B" Schools--Graduates of these schools who present fifteen units of work approved by the University are admitted

to the freshman class. Students coming from high schools or preparatory schools located in another state not accredited by the Association of Colleges and Secondary Schools of the Southern States, nor by the North Central Association of Colleges and Secondary Schools, but accredited by the state University of that state, may enter the University upon the same terms. For subjects accepted for admission see p. 21.

An official statement of the student's record, containing specific information as to the kind and extent of work done, should be mailed to the Registrar of the University as early in the summer as possible and in no case later than September 1. Blank forms for this purpose will be furnished upon request. Diplomas of graduation will not be accepted in lieu of certificates.

Students who have been previously admitted to another college or university of equal standing will be allowed to enter without conditions upon presenting a certificate of honorable discharge, and an official statement of the work accepted for entrance by the institution last attended, provided it appears that such work is substantially equivalent to the work required for entrance to the University of Arkansas.

OUTLINE OF ENTRANCE REQUIREMENTS COLLEGE OF ARTS AND SCIENCES

The following units are prescribed for the course leading to the degree of *Bachelor of Arts*:

English, three units.
Algebra, one unit.
Geometry, one unit.
History, one unit.

French, German, Greek, Latin, or Spanish, three units, at least two of which must be in the same language. When a student is not able to meet this requirement at entrance, he may be allowed to take as a part of his college course, in addition to the language requirement for a degree, a one-year course in foreign language of not less than three hours a week for each entrance unit in which he is deficient.

Enough additional units to bring the total to fifteen, including not more than four units in vocational and business subjects.

The following units are prescribed for the course leading to the degree of *Bachelor of Science in Chemistry*:

English, three units.
Algebra, one unit.
Geometry, one unit.
History, one unit.
Physics, one unit.

Enough additional units to bring the total to fifteen, including not more than four units in vocational and business subjects.

The following units are prescribed for the special courses in music:

English, three units.

History, one unit.

French, German, Greek, Latin, or Spanish, three units, at least two of which must be in the same language. When a student is not able to meet this requirement at entrance, he may be allowed to take as a part of his college course, in addition to the language requirement for a degree, a one-year course in foreign language of not less than three hours a week for each entrance unit in which he is deficient.

Enough additional units to bring the total to fifteen, including not more than four units in vocational and business subjects. A maximum of three units in music may be used as part of the elective work.

COLLEGE OF EDUCATION

The following units are prescribed for all courses leading to the degree of *Bachelor of Science in Education*:

English, three units.

Social Science, one unit.

Science and Mathematics group, two units.

Enough additional units to bring the total to fifteen.

Graduates of Class "A" high schools and preparatory schools of the State of Arkansas are admitted without reference to fixed conditions.

A maximum of four units towards entrance will be allowed in vocational subjects. Students preparing to teach agriculture, home economics, and commercial subjects may, however, be permitted to offer seven and one-half units in vocational subjects.

PROVISIONS AFFECTING ADVANCED STANDING

Graduates of the Arkansas State Normal School, and of institutions of equal standing elsewhere, who have completed at least two full years of normal school work after graduating from a fully approved four-year high school, will be admitted to junior standing.

COLLEGE OF ENGINEERING

The following units are prescribed for all four-year courses*:

English, three units.

Algebra, one and one-half units.

Geometry, one unit.

History, one unit.

Enough additional units to bring the total to fifteen, including not more than four units in vocational and business subjects.

*For a statement of the entrance requirements to the engineering trade courses, see page 116.

COLLEGE OF AGRICULTURE

The following units are prescribed for entrance to the four-year courses in agriculture:

English, three units.

Algebra and Geometry, two units (at least $\frac{1}{2}$ unit in Geometry).

Enough additional units to bring the total to fifteen.

A maximum of $7\frac{1}{2}$ units toward entrance will be allowed for vocational and business subjects to students from the district agricultural schools and accredited Smith-Hughes high schools.

A maximum of 4 units towards entrance will be allowed for vocational and business subjects to students from other accredited high schools.

HOME ECONOMICS

The following units are prescribed for the four-year course in home economics:

English, three units.

Algebra, one unit.

History, one unit.

Enough additional units to bring the total to fifteen.

Students from district agricultural schools, from accredited Smith-Hughes high schools, and other high schools offering courses in home economics approved by the State Supervisor, may offer $7\frac{1}{2}$ units in vocational and business subjects, $3\frac{1}{2}$ of which may be in business or vocational subjects other than home economics.

In accredited schools other than those mentioned above, four units may be offered in vocational (including home economics) and business subjects.

**ADVANCED STANDING ALLOWED STUDENTS FROM DISTRICT
AGRICULTURAL SCHOOLS**

Students entering from the District Agricultural Schools may obtain advanced standing by taking examinations in courses in agriculture or home economics offered in the Freshman and Sophomore years in the College of Agriculture, in so far as the student's work in the District Agricultural School has not already been applied as entrance credits.

ACCREDITED SMITH-HUGHES HIGH SCHOOLS

To be eligible for classification as an accredited Smith-Hughes High School, such school must be approved by the State Supervisor, and the agriculture or home economics taught must be approved by the faculty of the College of Agriculture of the University of Arkansas.

SUBJECTS ACCEPTED FOR ADMISSION

The following statements indicate in a general way the preparation which is expected in the various subjects accepted for

admission. The number in parentheses following each subject indicate the minimum and maximum number of units which may be offered in that subject. The term unit is understood to represent a high school or preparatory course continued through a school year of thirty-six weeks with five recitations of forty-five minutes each a week. In all laboratory work a double period of ninety minutes shall be equivalent to a single recitation period of forty-five minutes.

ENGLISH (3-4)

In order to secure a definite plan of study and unity of method on the part of the preparatory schools, the entrance requirement in English is outlined below somewhat in detail, following the recommendations of the National Conference on Uniform Entrance Requirements in English.

The study of English in school has two main objects: (1) command of correct and clear English, written and spoken; (2) ability to read with accuracy, intelligence, and appreciation.

Grammar and Composition. The first object requires instruction in grammar and composition. English grammar should ordinarily be reviewed in the secondary school; and correct spelling and grammatical accuracy should be rigorously exacted in connection with all written work during the four years. The principles of English composition governing punctuation, the use of words, sentences, and paragraphs should be thoroughly mastered, and practice in composition, oral as well as written, should extend throughout the secondary school period. Written exercises may well comprise letter-writing, narration, description, and easy exposition and argument. It is advisable that subjects for this work be taken from the student's personal experience, general knowledge, and studies other than English, as well as from his reading in literature. Finally, special instruction in language and composition should be accompanied by concerted effort of teachers in all branches to cultivate in the student the habit of using good English in his recitations and various exercises, whether oral or written.

Literature.—The second object is sought by means of two lists of books, headed respectively, *Reading* and *Study*, from which may be framed a progressive course in literature covering four years. In connection with both lists, the student should be trained in reading aloud, and be encouraged to commit to memory some of the more notable passages both in verse and prose. As an aid to literary appreciation, he is further advised to acquaint himself with the most important facts in the lives of the authors whose works he reads and with their place in literary history.

LIST OF BOOKS, 1920-1922

For 1920-1922 the College Entrance Examination Board has prepared two lists of books, a "Restricted" list and a "Comprehensive" list. The choice of books for reading and study in the Comprehensive list is rather wide. Copies of this list may be secured from the publishing houses, or from the College Entrance Examination Board, 431 West 117th Street, New York City. It should be noted that, though the Comprehensive list contains a number of books by living writers, it does not include contemporary novels of no permanent value. Such novels will not be accepted as part of the entrance requirement. The Restricted list is printed below, with semicolons used to set off the units. With a view to a large freedom of choice, the books provided for reading are arranged in the following groups, from each of which at least two selections are to be made, except as otherwise provided under Group 1.

A. READING

Group I. *Classics in Translation.*—*The Old Testament*, at least the chief narrative episodes in *Genesis*, *Exodus*, *Joshua*, *Judges*, *Kings*, and *Daniel*, together with the books of *Ruth* and *Esther*; *the Odyssey*, with the

omission, if desired, of books I-V, XV, and XVI; the *Æneid*. The *Odyssey* and the *Æneid* should be read in English translations of recognized literary excellence.

For any selection from this group a selection from any other group may be substituted.

Group II. *Drama*.—Shakespeare, *Merchant of Venice*; *As You Like It*; *Julius Caesar*.

Group III. *Prose Fiction*.—Dickens, *A Tale of Two Cities*; George Eliot, *Silas Marner*; Scott, *Quentin Durward*; Hawthorne, *The House of Seven Gables*.

Group IV. *Essays, Biographies, Etc.*—Addison and Steele, *The Sir Roger de Coverley Papers*; Irving, *The Sketch Book* (selections covering about 175 pages); Macaulay, *Lord Chichester*; Parkman, *The Oregon Trail*.

Group V. *Poetry*.—Tennyson, *The Coming of Arthur*, *Gareth and Lynette*, *Lancelot and Elaine*, *The Passing of Arthur*; Browning, *Cavalier Thomas*, *The Last Cavalier*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incident of the French Camp*, *Herz's Reel*, *Phœbe's Poles*, *My Last Duchess*, *Up at a Villa—Down in the City*, *The Italian in England*, *The Patriot*, *The First Father*, *"De Gustibus"*, *Lucian's Tyrannus*; Scott, *The Lady of the Lake*; Coleridge, *The Ancient Mariner*; and Arnold, *Sohrab and Rustum*.

B. STUDY

Group I. *Drama*.—Shakespeare, *Macbeth* or *Hamlet*.

Group II. *Poetry*.—Milton, *L'Allegro*, *Il Penseroso*, *Comus*; Book IV of *Parker's Golden Treasury* (First Series) with special attention to Wordsworth, Keats, and Shelley.

Group III. *Oratory*.—Burke, *Speech on Conciliation with America*; Washington, *Firewall Address*; Webster, *First Bunker Hill Oration*; and Lincoln, *Gettysburg Address*.

Group IV. *Essays*.—Macaulay, *Life of Johnson*; Carlyle, *Essays on Burns*, with a brief selection from *Burns's Poems*.

Note.—The reading list adopted by the Arkansas State Board of Education may be substituted for the above list, subject to the approval of the University in each case.

MATHEMATICS

Elementary Algebra (1).—Positive and negative numbers; addition, subtraction, multiplication, division; factoring; highest common divisor and lowest common multiple by factoring; fractions; equations of the first degree, in one, two or three unknowns, with numerous problems involving such equations; involution (omitting the binomial theorem); evolution (omitting cube roots); graphical representations and graphical methods in the solution of equations of all types; pure quadratic equations; affected quadratic equations by the method of completing the square and by factoring, with problems involving such equations. Hawkes-Luby-Touton, *First Course in Algebra*, or its equivalent, will be accepted as a satisfactory text.

Higher Algebra (1½).—A review of elementary algebra with more difficult problems and with some demonstrational work; theory of quadratics; simultaneous equations; ratios, ratio and proportion, variation, progressions (arithmetical, geometrical, and harmonic), and binomial theorem; and logarithms. Hawkes-Luby-Touton, *Second Course in Algebra*, or its equivalent will be accepted as a satisfactory text. One unit will be allowed for this course provided that the course is pursued during the fourth year, otherwise, only one-half unit will be allowed.

Plane Geometry (1).—Any of the standard texts on this subject will furnish the necessary preparation. The exercises requiring solutions and demonstrations should be emphasized.

Solid Geometry (½).—Any of the standard texts on this subject will furnish the necessary preparation. The exercises requiring solution and demonstrations should be emphasized.

Plane Trigonometry (½).—This should include a thorough study of some standard high school text, such as Harding and Turner's *Plane Trigonometry*. The exercises requiring solutions and demonstrations should be emphasized.

HISTORY AND SOCIAL SCIENCES

HISTORY

Ancient History ($\frac{1}{2}$ -1).—The completion of a standard text-book, with emphasis on the history of Greece and Rome and some attention to geography, will satisfy the requirements for one unit.

Medieval and Modern History ($\frac{1}{2}$ -1).—The completion of a standard text covering the history of Europe in medieval and modern times, some parallel reading, and a knowledge of the geography involved, will satisfy the requirements for one unit.

European History (1- $\frac{1}{2}$).—In place of the one unit courses in ancient history and medieval and modern history outlined above, two units of credit will be given for courses in European development based on texts like Robinson and Breasted, and Robinson and Beard.

English History ($\frac{1}{2}$ -1). An advanced high school text should be used. Constitutional points should receive attention, and easily accessible documents should receive careful study.

American History ($\frac{1}{2}$ -1). An advanced high school text should be used and the subject should be taken preferably in the senior year. Current newspapers and magazines should be assigned as collateral reading.

SOCIAL SCIENCES

Community Civics and Occupations ($\frac{1}{2}$ -1).—The aim of the course should be to help the child to know his community—not merely a group of facts about it, but the meaning of his community life, what it does for him, and how it does it, what the community has a right to expect from him, and how he may fulfill his obligations. This course should include a thorough study of some standard text, such as Hughes' *Community Civics*. If it is desired, a part of the time may be spent studying such a text as Gowin and Wheatley's *Occupations*.

Elementary Economics ($\frac{1}{2}$).—In the study of economics it is desirable to avoid two extremes, abstract theory on one hand, and controversial questions, such as the tariff, trusts, and trade unions, on the other hand. Emphasis should be placed on the historical and descriptive matter, especially relating to the economic development of England and the United States. Some good elementary text-book should be mastered and a reasonable amount of collateral reading required.

Elementary Sociology ($\frac{1}{2}$).—Concrete facts and problems, particularly of the social groups with which pupils are most familiar, such as the neighborhood, the local community, the play gang of adolescents, and the family, should be stressed.

Civil Government ($\frac{1}{2}$).—This should be a study of our government, national, state, and local, as it is organized and actually operated today. The instruction should aim to impart information essential to intelligent active citizenship, such as the division of the government into departments, their organization and functions, the methods of nominating, electing, and appointing men to office; of framing and amending constitutions, city charters, and statutes; of drawing grand and petit juries and the duty of the citizen to serve on them; the distinction between common law, state law, and constitutional law between equity, civil, and criminal cases.

Commercial Geography ($\frac{1}{2}$).—This describes and seeks to explain the commerce of today. The work should cover the ways in which commerce depends on nature and on man, the development of means of transportation and communication, and a detailed study of the several commercial regions of the world, with reference to resources, industries, transportation facilities, and commerce. It should be based on the text-book supplemented by map work and assigned readings.

LANGUAGES

LATIN

Latin Grammar (1).—This should include a thorough grounding in some standard elementary Latin Grammar, such as Bennett, Hale-Buck, or Allen and Greenough, revised edition. Proficiency is particularly desired

in the following subjects: the analysis of the verb forms, the rules of syntax, and the principal parts of the irregular verbs.

Caesar (½-1).—First four books or selections from the seven books equivalent to four. The student is expected to be familiar with the life of Caesar and an account of his wars.

Cicero (½-1).—Any four orations from the following list: *Against Catiline*, *Poet Arrian*, *Ligarius Marcellus*, *Manilian Law* (to count as two orations), the fourteenth *Philippic*. The student should also be familiar with the life of Cicero.

Vergil (½-1).—Six books of the *Aeneid*. The student should be familiar with the life of Vergil and an account of his times and writings. A correct rythmical reading of the text is to be encouraged.

GREEK

Greek Grammar (1). This should include a thorough grounding in some standard elementary Greek grammar, such as White's *First Greek Book*, with translation from Xenophon's *Anabasis*, Book I.

Xenophon's Anabasis (1-2).—Four books, accompanied by work in grammar and composition.

GERMAN

German Grammar (1).—The student should know the rudiments of grammar, be able to read prose at sight, and to translate simple English sentences into German.

Advanced German (1-3).—The student should be able to read modern German prose and poetry at sight and to translate easy English narrative into German. A considerable amount of reading from such authors as Rehl, Heyse, Freytag, Raumbach, Heine, Goethe, and Schiller will be expected.

FRENCH

French Grammar (1).—The student should be familiar with elementary French grammar, with special attention to the irregular verbs. He should be able to read easy prose at sight and to translate simple English sentences into French.

Advanced French (1-3).—The student should be able to read standard French prose and poetry at sight and to translate easy English narrative into French. A considerable amount of reading from such authors as Daudet, Loti, Sandeau, Dumas, Augier, Labiche and Martin, and Hugo will be expected.

SPANISH

Spanish Grammar (1).—The student should be familiar with elementary Spanish grammar and should be able to read easy prose and to translate simple English sentences into Spanish.

Advanced Spanish (1-3).—The student should be able to read standard Spanish prose and poetry at sight and to translate easy English narrative into Spanish.

NATURAL SCIENCES

All of the courses in natural science should include at least two 80-minute periods of laboratory work per week.

General Science (½-1).—The course should consist of an elementary study of the applications of science to the affairs of everyday life. Such topics as atmosphere and the weather, horse heating and ventilation, foods, water supply, hygiene, and disease preventions are types of the topics which should make up the course. It is not intended that the course should be organized as the special science, and it should not be organized with the idea of preparing students for work in the special sciences. The motivation of the course must be in terms of its own intrinsic value as a training for life. This point of view is expressed in most of the late textbooks on general science.

Physics (½-1).—This should include a thorough study of some standard high school text with textbooks, drawings, individual laboratory instructions, and demonstration work.

Physical Geography (½-1).—A thorough study of any standard high

school text supplemented by laboratory exercises will satisfy the requirements.

Physics ($\frac{1}{2}$ -1).—This should include a study of at least four of the following topics: mechanics of solids, liquids, and gases, sound, heat, light, electricity, and magnetism, based on some standard high school text and supplemented by laboratory exercises.

Chemistry ($\frac{1}{2}$ -1).—The full year's work should include a study of both the metals and non-metals with laboratory experiments to illustrate the common chemical laws and the more simple chemical reactions.

Biology ($\frac{1}{2}$ -1).—A thorough study of any standard high school text supplemented by laboratory exercises will satisfy this requirement.

Botany ($\frac{1}{2}$ -1).—The course should follow as closely as possible the nature and work of plants during the changing seasons of the year. The major portion of the work should be with living plants, naming the common plants of the neighborhood, both cultivated and native, and studying plant parts from seed to maturity.

Zoology ($\frac{1}{2}$ -1).—Animals should be studied as living units in their relation to one another and their environments. This study should include developmental stages as well as the adult stage. The aim of the teacher should be to foster a love for animate nature and to develop accuracy in observation and description.

VOCATIONAL SUBJECTS

AGRICULTURE

Plant Production ($\frac{1}{2}$ -4).—This work should include the study of farm crops, seed selection, soils and soil fertility, diseases and insects.

Animal Production ($\frac{1}{2}$ -4). This includes the study of history of breeds, feeding, breeding, judging, live stock production, and marketing, and diseases.

Dairying ($\frac{1}{2}$ -2).—Farm dairying, Babcock-testing, butter-making and record keeping.

General Horticulture ($\frac{1}{2}$ -2).—Plant propagation, principles of fruit growing, vegetable gardening, diseases and insects.

Farm Mechanics, Rural Engineering ($\frac{1}{2}$ -4).—This work should include farm shop work (both wood and forge), drawing, farm machinery, farm motors, farm drainage and farm buildings. Work should be especially applicable to farm practice.

Farm Management, Rural Economics ($\frac{1}{2}$ -1).—Farm accounting, project accounting, organization and marketing.

BUSINESS SUBJECTS

Commercial Arithmetic ($\frac{1}{2}$).—This should include a thorough study of some standard high school text such as Mills and Stone or Bremar and Smith, and should be studied during the third or fourth year, otherwise no credit will be allowed.

Business Law ($\frac{1}{2}$).—Text-book supplemented by study of a few typical cases, and practice in drawing up ordinary legal papers, such as bills, notes, checks, etc.

Elementary Bookkeeping (1).—A textbook should be employed with exercises so arranged that no two pupils will do exactly the same work, and no credit should be allowed unless the work is done neatly, accurately, and at a satisfactory rate of speed. It is suggested that double periods be provided, and all work be done in class under the eye of the instructor. The set used should include the journal, cash book, sales book, ledger, check book, bank pass book, and trial balance book.

Advanced Bookkeeping and Business Practice (1).—Thorough drill on standard business forms, such as bills, receipts, checks, and notes, also on the use and meaning of business symbols and abbreviations. The student should become acquainted with the bill and invoice book, and loose leaf and voucher systems of bookkeeping. Each student should carry on a business of his own, first as an individual, then as a partnership, and finally as a corporation. Credit on this course should mean that the student lacks only age and actual business experience to become a competent bookkeeper.

Typewriting ($\frac{1}{2}$ -1).—The student should have a complete mastery of

the keyboard by the "touch method." The minimum speed at the end of a year should be at least forty words per minute. Thorough training should also be given in care of the machine, in modern methods of manifolding, and in filing papers. One unit will be allowed for five periods of ninety minutes each per week for thirty-six weeks.

Shorthand (1-2).—The student should have a thorough knowledge of the fundamental principles of the system of shorthand studied, the word-signs and contractions, and the elements of phrasing. The minimum speed at the end of the first year should be sixty-five words per minute on correspondence dictation and fifty-five words per minute on general matter. Accuracy in reading shorthand notes is essential. To receive full credit at least two of the five periods per week must be double periods of ninety minutes each.

FINE ARTS

Music (1/2-2).—Credit will be granted in music to students from high schools whose music instructors are licensed, and whose courses are outlined by the State Music Teachers' Association. A year's work shall count as one-half unit, that is, a minimum of two entrance units shall be granted to students taking four years' work in music in the high school.

Art and Drawing (1/2-2).—One unit will be allowed for five periods of ninety minutes each per week for thirty-six weeks.

HOME ECONOMICS

Food (1/2-3).—Should include the study of food stuffs and the principles of cooking, the preparation and service of meals; the proper food for children, adults, aged, and sick; cost of food, care of the food in the home. Laboratory and recitations.

Clothing (1/2-3).—Types of materials best suited to articles or garments being made; skill in the different sewing processes; construction of garments and dresses; renovation of materials; cost of clothing; hygiene of dress; millinery.

House Making (1/2-1 1/2).—Care and sanitation of the home, house planning, furnishing, home management, home care of the sick, care of children.

Five periods—ninety minutes each—thirty-six weeks, count for one unit.

MANUAL TRAINING

Shop Work (1/2-4).—Credits will be allowed as follows: Two units in jewelry, wood turning, and cabinet making; 1/2 unit in pattern making; 1/2 unit forging; 1/2 unit foundry; 1/2 to 2 units machine shop; 1/2 to 2 units painting; 1/2 unit for sheet metal work; 1/2 unit for electric wiring; 1 to 2 units for auto shop work.

Mechanical Drawing (1/2-4).—1/2 to 2 units will be allowed for mechanical drawing; 1/2 to 2 units for machine drawing; 1/2 to 2 units for architectural drawing; 1/2 to 2 units for sheet metal drawing.

Five periods—ninety minutes each—thirty-six weeks, count for one unit.

NORMAL TRAINING SUBJECTS

Psychology (1/2-1).—The chief emphasis should be upon instinctive tendencies, habit formation, memory, association, economy of learning, the affective life, and the thought processes. Both general and educational psychology, forming the bases of the normal courses in educational theory and practice, should be stressed. The course should be based on some standard text such as Colvin and Bagley, or LaRue, correlated with supplementary readings.

Classroom Management (1/2-1).—A discussion of classroom organization, classroom routine, the daily program, etc., should be followed by an analysis of the principal types of teaching, technique of instruction, assignments, teaching how to study, and the art of questioning. Standard text such as Strayer, or Sears, or Bagley, together with abundant supplementary material, should be mastered.

Special Methods, Observation and Practice (1/2-1).—Practice teaching should be preceded by systematic observation of classroom work. During

the term in which the student undertakes practice teaching, it should be the dominating feature of the student's work. For the work in special methods some standard text such as Freeland, or Kendall and Mirick, or Betts should be studied.

LIST OF ACCREDITED HIGH SCHOOLS OF ARKANSAS

(Correct to June 15, 1920. Beginning with the school year 1920-21, the State Board of Education inaugurated a new system of classification of the high schools of Arkansas. Under this new plan most of the high schools now in Class "A" list will be rated as Class "B" schools).

CLASS "A"

Four-year high schools accredited in fifteen or more units:

Arkadelphia	Helena
Ashdown	Hope
Augusta	Hot Springs
Batesville	Jonesboro
Bentonville	Junction City
Berryville	Lake Village
Blytheville	Leslie
Booneville	Lewisville
Brinkley	Little Rock
Camden	Lonoke
Carlisle	Magnolia
Clarendon	Malvern
Clarksville	Mammoth Springs
Conway	Mansfield
Corning	Marianna
Cotton Plant	Marshall
Crescent College	Marvell
(Eureka Springs, Ark).	Mena
Crossett	Monticello
De Queen	Morrilton
Dermott	Mountain Home College
Dierks	Nashville
Earle	Newport
El Dorado	North Little Rock
England	Osceola
Eudora	Ozark
Eureka Springs	Paragould
Fayetteville	Paris
Forest City	Parkin
Fordeyce	Piggott
Fort Smith	Pine Bluff
Gravette	Portland
Greenwood	Prairie Grove
Hamburg	Prescott
Harrisburg	Rogers
Harrison	Russellville
Hazen	Searcy

Siloam Springs
Springdale
Stamps
Stuttgart
Texarkana
Thorton

Van Buren
Waldron
Walnut Ridge
Warren
Wilmar
Wynne

First District Agricultural High School, Jonesboro.
Second District Agricultural High School, Russellville.
Third District Agricultural High School, Magnolia.
Fourth District Agricultural High School, Monticello.

CLASS "B"

Three-year high schools accredited in thirteen or more units
and four-year high schools accredited in thirteen to fifteen units:

Beauxite
Bearden
Benton
Cabot
Columbus
Cotter
Danville
Dardanelle
Des Arc
De Valls Bluff
Foreman
Gentry
Gillett
Glenwood
Grady
Gurdon
Hartford
Heber Springs
Sloan-Hendrix Academy
(Imboden, Ark).

Lockesburg
Magazine
Marked Tree
McCrary
McGehee
Moro
Murfreesboro
Newark
Rison
Roe
Sulphur Rock
Sutton
(Emmett, Ark).
Tuckerman
Vanndale
Waldo
Washington
West Helena
Wilmot

ADMISSION AS A SPECIAL STUDENT

A person of mature age, who is not a candidate for a degree, may be admitted as a special student under terms prescribed by the individual colleges. A special student is not required to meet the regular entrance requirements, but must satisfy the dean of the college in which he wishes to enroll that he is capable of carrying college work. In addition, each application must have the endorsement of the instructor whose work the applicant desires to take.

Admission as a "Special" does not exempt the student from Military Art in the case of men students, or from Physical Education in the case of women students.

College of Arts and Sciences. Applicants for enrollment as special students must be at least twenty years of age, except

that in the Department of Fine Arts applicants may be admitted at the age of eighteen.

College of Education. Applicants for enrollment as special students must be at least twenty years of age.

College of Engineering. Applicants for enrollment as special students must be at least eighteen years of age, except that in the trade courses applicants may be admitted at the age of sixteen.

College of Agriculture. Applicants for enrollment as special students must be at least eighteen years of age, except that in the short course applicants may be admitted at the age of sixteen. All applicants must have had at least two years of practical farm experience.

Special students are subject to the same regulations as other undergraduate students. They may become candidates for a degree by complying with the necessary regulations. No person will be permitted to register as a special student for more than one year without the permission of the dean of the college concerned.

ADMISSION TO ADVANCED STANDING

Students presenting transcripts of credits from institutions of recognized standing may receive credit without discount to the extent that the subjects offered for advanced standing may be counted in fulfilling the requirements for a degree in the University of Arkansas. In no case may an undergraduate student receive credit for more than three full years' work. The University reserves the right to revise an account of advanced standing after a student has been in residence a year.

Transcripts of credits from institutions not of recognized standing may be dealt with in one of two ways, at the discretion of the University Examiner. (1) A student presenting a transcript may be given a certain amount of provisional credit which he may hold free from qualifications, after he has completed in the University of Arkansas further work in those subjects for which he is asking advanced credit. (2) Such a transcript may be refused altogether, in which case the transcript is held merely as evidence that the student has studied the subject, and is entitled to make application for an examination for advanced standing. No student shall be admitted to examination for advanced standing in any subject unless he can present documentary evidence that he has at some time studied that subject. An application for advanced standing by examination must be made within six weeks after the student first enters the University.

All transcripts of credits should be sent to the University Examiner before the opening of the term in which the student expects to enter, or should be presented to the Examiner immediately upon the student's arrival.

Only officially signed transcripts will be accepted for evaluation. They should include a complete record of the courses pursued, with the number of weeks and hours a week spent upon

each subject. If occasion arises, the Examiner may have the right to demand that a catalog of the years covered by the transcript be also presented.

ADMISSION TO GRADUATE STANDING

A student seeking admission to graduate standing must have completed an undergraduate course of four years, or its equivalent, at the University of Arkansas, or at some other college or university of equal standing. Such a student should present an official transcript of his complete undergraduate record to the University Examiner, who will forward his name to the Senate Committee on Graduate Study with recommendation that he be admitted to graduate standing, or be not admitted as his record may seem to justify. Before a student may become a candidate for an advanced degree, his petition must have the approval of the Senate Committee on Graduate Standing and of the dean of the college in which he expects to study.

FEES AND EXPENSES

BENEFICIARY APPOINTMENTS

The state law provides that one thousand students residing within the state may receive beneficiary appointments entitling them to free tuition. These appointments are apportioned to the various counties according to population, and are obtained from the county judge. Those who are unable to obtain appointments from the county judge may receive them from the President of the University until the number of one thousand is reached.

FEES

All fees must be paid in advance to the Auditor at the beginning of each term. No student will be allowed to attend classes until his fees are paid.

Matriculation, student activities, and library fee (paid by all students) per term-----	\$ 8.00
Tuition fee (paid by all non-resident students and by others who do not hold beneficiary appointments) per term-----	10.00
Dormitory fee (paid yearly by all students living in the dormitories)-----	5.00
Diploma fee (payable at graduation)-----	10.00
Certificate fee (payable at graduation)-----	5.00

A laboratory deposit is required of all students pursuing laboratory courses. Students who break or destroy apparatus or equipment in the laboratories will be required to pay the cost of same.

The amounts of laboratory fees, fees for music, etc., are given under the proper courses.

EXPENSES

The following estimates, based upon data secured from students recently in attendance, will give some idea of the cost of attending the University for a year.

	Low	Moderate	Liberal
Board, Laundry, Heat and Light-----	\$290	\$325	\$400
Books, Instruments and Other Supplies	40	50	55
Other Expenses -----	50	60	100
Matriculation fee and Student Activities fee -----	24	24	24
	<u>\$404</u>	<u>\$459</u>	<u>\$579</u>

BOARD AND ROOM

The men's dormitories provide accommodation for about two hundred and fifty students. The rooms are furnished with beds, springs, mattresses, chairs and tables. A charge of \$5.00 per year for each occupant is made. The recreation rooms and parlors in Hill Hall have been reconstructed, refurnished, and made very attractive. A large store room for the men's dormitories has also been built. Board, heat, light, and laundry are provided at cost, which is about \$30.00 per month.

The women's dormitory provides accommodation for about one hundred. For rooms, furnished except for linen, towels and bedding, a charge of \$5.00 per each occupant is made. The cost of board at the women's dormitory is about \$30.00 per month.

Reservations for rooms in any of the dormitories should be sent to the Auditor of the University not later than September 1. No reservation will be made unless the dormitory fee of \$5.00 has been paid.

Lodging in private homes near the University may also be had at reasonable rates. Boarding places, other than the dormitories, must be selected from a list approved by the University authorities, and may not be changed except by the consent of the Dean of Women, or of the President.

OPPORTUNITY FOR SELF SUPPORT

The University Young Men's Christian Association maintains an Employment Bureau for the purpose of placing worthy students in positions which may enable them to support themselves wholly or in part.

ORGANIZATIONS AND ACTIVITIES

CONVOCATION

Convocation exercises for the faculty and students are held in the auditorium on the first floor of University Hall at the call of the President. The programs consist of addresses and lectures by men in public life, discussions of University affairs

and problems, and musical numbers. Attendance at convocation exercises is required of all freshmen and sophomores.

CHRISTIAN ASSOCIATIONS

The Christian Associations stand for spiritual, mental and physical development. Their mission is to befriend and help those who need friends and help, to apply Christian principles to college life, to train for aggressive religious work—in short, to prepare men and women to go out from the University to become religious, as well as business, social, and intellectual leaders.

The Young Men's Christian Association holds religious meetings for young men Sunday afternoons and Thursday evenings. The Young Women's Christian Association holds religious meetings for women Sunday mornings and Thursday evenings. A series of special evangelistic meetings is held once each year.

A most helpful feature of the work of the association is in the interest displayed in new students at the opening of the college year. Students are assisted in securing desirable rooms and boarding places. A bureau of information is conducted for the benefit of all students who need assistance. Each association employs a general secretary who gives full time to the work.

The University authorities are in hearty sympathy with the organizations and do everything in their power to aid in the work of both.

INTERCOLLEGIATE DEBATE

The University holds annual debates with other collegiate institutions, each school being represented by one team on the affirmative side of the question and one team on the negative. The debates are held usually during the second week of April. Each member of the intercollegiate debating team is awarded an "A" to be worn on a lapel pin in recognition of his services, and is allowed four term hours of credit towards a degree (see page 62, English 541).

ATHLETICS

The Athletic Board of Control, composed of four members of the faculty and three students, has general charge of athletics. The Director of Athletics, assisted by special coaches for foot ball and baseball, has the immediate supervision of all athletic activities for men students. The director of physical training for women teaches the courses offered to women.

The University is a member of the Southwest Intercollegiate Athletic Conference, and as such is governed by the rules of the Conference in all intercollegiate athletic contests. Some of the more important rules of eligibility are:

1. No student shall participate in any intercollegiate athletics until one year from the date of his registration in the institution which he represents.

2. No person not an amateur shall be allowed to represent any member of the Conference in any athletic contest.

3. A student transferring from one institution of collegiate

rank to another shall not be eligible to compete in intercollegiate athletics until he has been a student for one year in the institution to which he transfers.

4. No person shall be permitted to participate in intercollegiate athletics who is not a student in good and regular standing, who is not taking at least the minimum amount of work prescribed in the regular course of study in his institution, and who is not making a passing grade in at least two-thirds of the normal amount of work prescribed.

5. No student shall be eligible to compete in intercollegiate athletics, who, during his last semester in attendance, failed to pass two-thirds of the normal work for his course.

6. If a man be dropped from an institution of the Conference on account of scholastic deficiency, he shall not be eligible to compete in athletics until he shall have completed one full year's work, passing two-thirds of the work taken.

ORGANIZATIONS AUXILIARY TO COURSES OF STUDY

The *American Institute of Electrical Engineers, University of Arkansas Branch*, meets regularly on Tuesdays throughout the school year, for the presentation of original papers and for discussion of the regular Institute transactions of which advance copies are received. All students interested in electrical engineering are eligible to membership.

The *American Association of Engineers, University of Arkansas Chapter*, meets monthly. The purpose of the Association is to promote the interests of the Engineering profession, to make it more useful in public affairs, and to aid its members in securing employment.

The *University Society of Civil Engineers* meets regularly on Tuesdays throughout the school year for the presentation of original papers and the discussion of current technical literature. The object of the Society is to provide practice in public speaking for its members.

The *American Society of Mechanical Engineers, University of Arkansas Student Section*, meets regularly on the second and fourth Mondays of the month, during the school year. The meetings are devoted to the presentation of original papers and discussion of papers selected from those regularly presented before the American Society of Mechanical Engineers, of which advance copies are received. Occasionally a lecture by some prominent engineer takes the place of the regular program.

The *Agricultural Club* meets weekly to discuss topics of practical and theoretical interest to students of agriculture and current topics of general interest. Occasional lectures by experts in agriculture take the place of the regular programs.

The *Home Economics Club* is an organization of students who

desire to promote the standards and ideals of Home Economics, and who wish to create a basis for wholesome social development.

The *Pre-Medical Club* is composed of students who are planning to take up the study of medicine. The object of the club is to aid these students in arranging their course of study and to give them an opportunity of hearing lectures on medical subjects.

LITERARY SOCIETIES

The *Garland Lee*, and *Pericles* societies for men meet Saturday evenings to render programs consisting of prepared and extemporaneous debates, speeches, and readings. The *Sapphic* society for women meets Saturday evenings.

DRAMATIC CLUB

The *Black Friars* meet on alternate Tuesdays for the study of plays, classic and current, and for general information in matters pertaining to the drama and to the theater. Two plays are produced each year. Membership in the society is limited to twenty-five.

GLEE CLUB

The *Glee Club* is open to all men students. Membership is determined by competition.

HONOR SOCIETIES

Tau Kappa Alpha is restricted to intercollegiate orators and debaters. The aim of the organization is to encourage and reward meritorious effort in public speaking.

Tau Beta Pi is restricted to engineering students. The object of the organization is to encourage scholarship and to foster liberal culture among engineering students. Eligibility to membership is based upon high scholarship and character.

Skull and Torch is restricted to juniors and seniors in the College of Arts and Sciences and the College of Education who are candidates for a degree. Eligibility to membership is based upon high scholarship and personal character.

Pi Kappa is an honorary sorority for young women interested in journalism. Election to *Pi Kappa* comes as a reward for consistent and efficient work on University publications.

Phi Alpha Tau is a national honorary dramatic fraternity and eligibility to membership is based on efficient work in the field of dramatic art.

Alpha Zeta is restricted to upperclassmen in the College of Agriculture. Eligibility to membership is based upon high scholarship and character.

Pi Lambda Psi is restricted to upperclassmen. The purpose of the organization is to promote the interest of college journalism by making membership conditional upon faithful and efficient service on college publications.

Sword and Blade is restricted to cadet officers. Eligibility

to membership is based upon efficiency, personal character and influence, and interest in military affairs.

ALUMNI ASSOCIATION

The Alumni Association of the University of Arkansas on June 13, 1919, adopted a new constitution which extended its membership to include all ex-students in good standing who were regularly enrolled in the University for one year. The association meets annually on Monday of Commencement week. Dr. A. M. Harding, Director of General Extension, is serving as general secretary, with the assistance of an office secretary provided by the association. The alumni bulletin is published under the direction of the general secretary.

Franch associations have been organized in Little Rock, Fort Smith, and Jonesboro. Plans have been made for similar units in other parts of Arkansas and in other states.

STUDENT PUBLICATIONS

The Arkansas Democrat is devoted to current events and matters of interest to the University as a whole.

The Yearbook is published annually by the junior class. It contains pictures of individuals, classes, and organizations and serves as a history of the school year.

The Arkansas Engineer is issued monthly by the students of the College of Engineering.

HONORS, SCHOLARSHIPS, AND PRIZES

SCHOLARSHIPS

Women's Clubs Scholarships. The Federation of Women's Clubs of Arkansas offers two annual scholarships, one for men and one for women. Appointment to the scholars is determined by competitive examinations held in June of each year by the county examiner or county superintendent under the direction of University authorities. Candidates must stand examination in fifteen units of high school work including those units prescribed for entrance to the University. Persons who wish to take the examinations should notify the University Examiner before May 1 so that examinations in the desired subjects may be forwarded to the examiner or superintendent in good season. Graduates of the high schools of Little Rock, Fort Smith, Helena, Texarkana, Pine Bluff, and Hot Springs, are not eligible. The scholarships pay approximately \$150 each.

Daughters of the Confederacy Scholarship. The Daughters of the Confederacy of Arkansas have provided one scholarship.

Elks Scholarship. The Benevolent and Protective Order of Elks has provided a scholarship to be awarded by the Federation of Women's Clubs. Correspondence should be addressed to Mrs. Edwin Bevens, Helena, Arkansas.

University Scholarships. The Board of Trustees has provided

one scholarship annually to be awarded to the honor graduate of each fully accredited public high school within the state. In case a particular high school does not select any member of the graduating class as the honor graduate, the scholarship shall be awarded to the student who has made the highest average in his studies for the entire high school course. The scholarship grants exemption from the payment of matriculation, student activities, and library fees.

HONORS

By a system of departmental, class, and graduation honors, the University gives official recognition of attainments in scholarship.

Departmental Honors. To be eligible for departmental honors, a student must have passed in at least twenty-seven term hours in the particular department with a grade of "A." From the students who are eligible for honors in a department, the teaching force of that department shall select the first and second. As a basis for this selection, all of the work done in the department, and general class standing, if necessary, shall be considered.

Class Honors. Any student who passes in at least twenty-four hours of collegiate work, receives a grade of "A" in not less than eighteen hours, and ranks not less than "C" in any course shall receive class honors.

Honors at Graduation. Any student who makes class honors in both his junior and senior years shall be termed an honor graduate.

All honors shall be published at commencement, and in the catalog for the following year.

All students who are honor graduates shall have the fact noted in their diplomas.

PRIZES

William Jennings Bryan Prize. The Hon William Jennings Bryan has given to the University the sum of \$250, the interest on which is offered annually as a prize for the best essay on some topic relating to the problems of government. The contest is open to juniors and seniors. Further information may be obtained from the professor of economics and sociology.

Troy W. and Jesse Lewis Economic Essay Prize. Mr. Troy W. Lewis, of Little Rock, offers annually a prize of \$10.00 to that member of the senior class who writes and submits the best essay on some economic subject. Further information may be obtained from the professor of economics and sociology.

Chi Omega Prize. The Chi Omega sorority offers at each institution at which it has a chapter an annual prize of \$15.00 for the best essay on some topic connected with the study of sociology. The contest is open to all women of the University who are pursuing courses in economics or sociology.

Brough Debating Medal. Ex-Governor Charles Hillman Brough, formerly head of the Department of Economics and

Sociology at the University, offers a medal of the value of \$20.00, or a cash prize of \$20.00, for excellence in debate, to be contested for by two representatives of each of the literary societies. Under the conditions of the award, two debates must be held during the year, one formal, in which the speeches are prepared, valued at sixty per cent, and one informal, in which the speeches are extemporaneous, valued at forty per cent. These debates are designed to train students in the art of forensic speaking and to promote a friendly rivalry between the literary societies.

Arkansas Engineering Society Prize. The Arkansas Engineering Society offers a prize, the value of which does not exceed \$25.00, for the best thesis submitted by a member of the senior class in the College of Engineering.

Science Club Prize. The Science Club of the University offers a prize of a medal, or of scientific books or apparatus of like value, to a member of the senior class upon the basis of his grades in science courses pursued in residence at the University up to the beginning of the last term of his senior year.

To be eligible a student must have at least eight term hours of credit in three of the five following fundamental sciences: mathematics, physics, chemistry, botany, and zoology; he must show a total of not less than one hundred term credit hours in science, which must be chosen from the following subjects or groups: astronomy, botany, chemistry, geology, mathematics, physics, zoology, bacteriology, entomology and plant pathology, psychology, home economics, civil engineering, electrical engineering, mechanical engineering, agronomy and horticulture, animal husbandry and veterinary science.

In making this award the student's average in each subject is to be determined and the final average is to be the average of all sciences taken. All science courses taken by the student must be included.

The award shall be made by a committee, appointed by the president of the Science Club, composed of a representative from each of the colleges of the University. The successful candidate must be chosen from the three students standing highest on the list.

RULES AND REGULATIONS

Each student at the time of registration is given a copy of the rules and regulations for undergraduate students for the observance of which he will be held strictly responsible.

GOVERNMENT

The government of the University is vested primarily in a Board of Trustees, consisting of the Governor of the State and the State Superintendent of Public Instruction, as ex-officio

members, and seven other members, appointed by the Governor for a term of six years.

The administration of the University is vested in the President, the University Council, the University Senate, and the faculties and deans of the various colleges.

The President is the administrative head of the University. The University Council is composed of the President, the deans of the several colleges, and four other members, appointed by the President. The Council is the central executive body of the University and is advisory to the President.

The University Senate is composed of the President, the Registrar, the deans, and all heads of departments and full professors. The Senate is the general legislative body of the University.

The faculty of each college within the University has jurisdiction, subject to higher University authority, over all matters that concern exclusively that college.

The dean of each college is responsible for the carrying out of all University regulations within his college. The Dean of Women acts as an advisor to women undergraduate students and is charged with the general care and conduct of these students.

DISCIPLINE AND ATTENDANCE

Students are required to be diligent in the pursuit of their studies and regular in their attendance at class. Those who fail to meet these requirements will be requested to withdraw.

Students are required to attend all meetings and examinations of courses for which they are registered. For each eleven credit hour absence the student shall be required to complete one extra hour for graduation.

Absences with athletic teams, debating teams, or other organizations which leave the University on official work, and absences of individuals who are permitted by the president to leave the University on official business pertaining to the University, or some organization thereof, shall count at half rate, provided the coach, manager, or other person in charge files with the Registrar, before leaving the University, a certificate, upon a form prescribed by the University, for each student who proposes to make the trip.

Absences of one full day or more, due to sickness of the student, or of a member of his immediate family, or to death in the student's immediate family, shall count at half rate, provided the student files in the office of the Registrar, not later than one week after his return to classes, upon a form prescribed by the University, a statement of the cause of his absence verified by the certificate of the attending physician. Such certificate forms may be obtained from the office of the Registrar.

Students incurring absences in accordance with the above regulations may have the privilege of making up the lost recitations, as evidenced by turning in written work, or in some other manner

satisfactory to the instructor concerned. When such lost recitations have been made up, the remaining absences shall be removed. Applications for the privilege of making up absences must be made to the Registrar *within one week* from the time of return to the University.

Each absence on the first day of any term, or on the day preceding or following any holiday, shall count as four, unless the student shall file with the Registrar a statement showing that such absence was caused by illness, death in the family, or some other cause which the Registrar may deem adequate.

The Registrar shall, at any time he may deem advisable, report to the Committee on Attendance and Discipline any student who absents himself from his University duties without good reason.

A student who is absent from an examination must explain his absence to the University Examiner within a time set by the Examiner. Failing to do so, he will be given a grade of "F" in the course.

In accordance with state law, all students, members of the faculty, and employees of the University are required to present certificates of successful vaccination. Students who fail to present certificates will not be allowed to attend classes.

REGISTRATION

Students are required to matriculate and classify before the beginning of each term. Those who enter a course late will be held accountable for all work of the course previous to their entrance.

STUDENTS' WORK

A student in his first term at the University, unless he is registered in a class higher than the freshman, shall not be permitted to carry a greater number of hours than the normal number required in his course, provided that the dean of the college concerned may at his discretion allow such student to carry one hour more than the maximum prescribed. Students who have done work of an exceptionally high grade in the high school may be exempted from the operation of this rule by permission of the dean of the college concerned.

A freshman student who enters conditionally shall not be allowed to carry more than the normal number of hours required in his course. In computing this there shall be reckoned the work that he is doing to make up entrance conditions.

A student who has failed in any subject (not including physical education and military art) in any term shall not be allowed the next following term to carry more than the normal number of hours required in his course.

The dean of the college in which a student is enrolled may at his discretion limit the number of hours that the student shall be allowed to carry.

A student may enroll in two classes when a conflict occurs only by permission of the dean of the college and of the heads

of the departments concerned. In no such case shall a student be allowed to lose more than one-third of the time devoted to recitation in either class. The student shall be charged with all absences incurred through such conflict.

COURSE SYMBOLS

The numbers of courses which are taken to remedy entrance deficiencies contain two digits only, the first of which shows the number of hours of credit per week and the second distinguishes the course.

The numbers of the regular college courses contain three digits, the first indicates the college year, the second, the number of hours of credit per week; the third, the particular course.

These numbers are distributed as follows:

101 to 199—Courses which are open to freshmen.

201 to 299—Courses which are required of sophomores in one or more of the colleges, or elective for sophomores, juniors or seniors.

301 to 399—Courses which are required of juniors in one or more of the colleges, or elective for juniors and seniors.

401 to 499—Courses which are required of seniors in one or more of the colleges, or elective for seniors.

501 up —Open electives for sophomores, juniors and seniors.

Courses with double or triple numbers, as English 131 (132) (133) run through two or three terms, respectively, and credit will not be allowed until the final term's work is completed.

Courses indicated by a star (*) may be elected by graduate students for credit towards an advanced degree.

CREDIT HOURS

The number of term credit hours allowed in each course is identical with the number of hours per week spent upon that course except that in the laboratory, shop, or field work two to three hours will be considered equivalent to one hour of lecture or recitation.

GRADING AND EXAMINATIONS

The following grading system went into effect September 1, 1916: A, B, C, D (passing grades), E (conditional failure), F (absolute failure). A student receiving a grade of "E" may remove it by an examination. A student receiving a grade of "F" shall not receive credit for the course except by repeating it in class. A student receiving a grade of "D" in any subject shall have an opportunity to raise this grade by passing an examination. Should he elect to take such examination, the grade made upon the examination shall become a part of his permanent record in place of the first grade made.

Examinations to raise the grade "D," or to remove the grade "E," shall be given on Monday and Tuesday of registration week

in the student's next succeeding college year. In the case of seniors applying for graduation, a re-examination either to remove the grade "E" or to raise the grade "D" may be given in the same year prior to commencement at a time set by the Examiner.

Seniors applying for graduation and carrying the requisite work to entitle them to graduation, may, upon the recommendation of the instructors concerned, be excused from final examinations in each course in which their grade is as high as "B." Notices of exemption are sent by the Examiner near the end of the term.

If for any reason a student drops a course after the sixth week of the term, and if the student's work during the time that he attended the course was below the grade of "D," there shall be entered on his record a grade of "I" in that course; if "D" or above, he shall be marked "Excused" in that course.

In a "model" class (one in which all qualities of work are represented), the following scale of percentages in the different grades may be taken as an approximate:

- A, not more than ten per cent;
- B, not more than twenty per cent;
- C, from forty to fifty per cent;
- D, approximately twenty per cent;
- E and F combined, not more than ten per cent.

REQUIREMENTS FOR GRADUATION

In all divisions of the University except the College of Arts and Sciences, no student shall be graduated who has a failing grade on his record which has not been satisfactorily repeated in class, removed by examination, or excused by the faculty of the college concerned.

No student shall be allowed to graduate from any division of the University if more than twenty-five per cent of his work is of the "D" grade.

In addition to completing the prescribed course of study, candidates for a degree are required to do at least the work of the senior year in residence.

COLLEGE OF ARTS AND SCIENCES

The object of the courses offered in the College of Arts and Sciences is to cover the broad field of general university study, including ancient and modern languages and literatures, history and the social sciences, mathematics, the natural sciences, and the fine arts. It aims to afford the student an opportunity to gain a broad, cultural education, as well as to equip himself for further study in more technical fields.

ADMISSION

For a detailed statement of the entrance requirements and a description of the subjects accepted for entrance see page 19.

GRADE POINTS

Grade points are awarded on the following basis:

For grade A, 6 points for each hour.

For grade B, 4 points for each hour.

For grade C, 2 points for each hour.

For grade D, credit, but no points.

For grade E, 1 negative point for each hour.

For grade F, 2 negative points for each hour.

Twice as many points will be required for graduation as term hours of credit. If additional work is required for any cause, additional grade points will be necessary at the rate of two points for each term hour.

No change in grade points will be allowed unless the subject be repeated in class.

In case of exemption from final examination, grade points will be granted as for grade of "B."

COURSES OF STUDY

The College of Arts and Sciences offers four-year courses leading to the degree of *Bachelor of Arts* (B. A.), and *Bachelor of Science in Chemistry* (B. S. C.); a graduate course leading to the degree of *Master of Arts*; and special courses in music leading to a certificate or diploma.

Candidates for the degree of Bachelor of Arts, who wish to teach in the schools of any state which requires professional preparation of its teachers, should take as part of their elective work the courses mentioned on page 91. They will then receive both the degree of Bachelor of Arts, and the teachers' certificate which will entitle them to teach in any school in the state without being required to pass examinations for a teacher's license.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS

The candidate must meet the entrance, residence, and registration requirements and must complete satisfactorily at least two hundred one term hours in approved courses, to be chosen with the following restrictions:

1. Prescribed courses as follows: English 131 (132) (133), nine hours; Military Art, nine hours (for men), or Physical Education, six hours (for women).

2. Elective courses to be chosen from the following group, with the restrictions noted below:

Group 1: English, French, German, Greek, Italian, Latin and Spanish.

Group 2: Astronomy, Botany, Chemistry, Geology, Mathematics, Physics and Zoology.

Group 3: Economics, Education, History, Home Economics, Philosophy, Political Science, Psychology and Sociology.

Group 4. Agriculture, Engineering, Fine Arts, Law, Medicine and Stenography.

a. The candidate may elect not more than sixty hours in any one subject, and not more than one hundred twenty hours from any one group. At least twenty-seven hours must be elected from each of groups 1, 2 and 3, (provided that at least twenty-seven hours exclusive of any course or courses offered from any other college in the University must be elected from group 3) and not more than twenty-seven may be elected from group 4. A maximum of thirty-six term hours may be offered from the College of Education toward the degree of Bachelor of Arts.

b. No elementary course in science can apply toward requirements of group 2 unless it contains at least nine term hours.

c. The candidate must select, not earlier than the beginning of his sophomore year, and not later than the beginning of his junior year, one major subject, to be chosen from group 1, 2 or 3, in which he must complete not less than forty-five hours, and two minor subjects, in which he must complete not less than twenty-seven and eighteen hours respectively, subject to the approval of the candidate's major professor and the dean of the college. A description of the major requirements of each department will be found under the departmental statements.

d. The candidate selecting Home Economics, group 3, as the major subject, must complete not less than forty-five hours, nor more than forty-eight hours of the major subject. Eight additional hours, to be taken in Psychology, not in Education, may be taken in the College of Education, but no more, for such major students.

e. The candidate will be required to complete, in the combined high school and college courses, at least thirty hours of one foreign language, at least nine hours of which must be taken in college classes. In computing the total, each unit of high school work shall count as equivalent to six hours of college work. The student shall continue his language study until his requirement is satisfied, which in case of a modern language means a satisfactory working knowledge of that language.

f. The candidate must conform as closely as possible to the following schedule in the distribution of his work.

Freshman Year

	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
English 141, 142, 143.....	4	4	4
Military Art 111, 112, 113, (or)			
Physical Education 111, 112, 113.....	1	1	1
*Elective	11	11	11
	<hr/> 16	<hr/> 16	<hr/> 16

Sophomore Year

	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Military Art 221, 222, 223 (or)			
Physical Education 211, 212, 213.....	1	1	1
Physical Education 1111, 112, 113	1	1	1
*Elective	16	16	16
	17	17	17

Junior Year

	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
*Elective	17	17	17

Senior Year

	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
*Elective	17	17	17

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN CHEMISTRY

The candidate must meet the entrance, residence, and registration requirements and must complete at least two hundred and four credit hours in approved courses as presented below.

	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
<i>Freshman Year</i>			
Chemistry 141, 142, 143	4	4	4
Physics 141, 142, 143	4	4	4
English 131, 132, 133	3	3	3
Mathematics 154, 155, 156	5	5	5
Military Art 111, 112, 113	1	1	1
	17	17	17

Sophomore Year

	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Chemistry 251, 254, 255	5	5	5
Physics 244, 245, 246	4	4	4
Mathematics 234, 235, 236	3	3	3
†German 131, 132, 133	3	3	3
Military Art 221, 222, 223	1	1	1
Elective	1	1	1
	17	17	17

Junior Year

	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Chemistry 354, 355, 359	5	5	5
Botany 141, 142, 143, or Zoology 144, 145, 146....	4	4	4
†German 231, 232, 233	3	3	3
*Elective	5	5	5
	17	17	17

*To be chosen with the advice and consent of the candidate's major professor so as to meet the group requirements outlined above.

†Another foreign language may be substituted.

Senior Year

	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Chemistry, 434, 435, 436	3	3	3
Chemistry 451, 452	5	5	
Geology 147, 148, 149	4	4	4
*Elective	5	5	10
	<hr/> 17	<hr/> 17	<hr/> 17

REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS

The degree of Master of Arts is granted for graduate work based upon an undergraduate course of four years, with the degree of *Bachelor of Arts*, completed at this University, or another college or university of equal standing. Before a student may become a candidate for the degree, however, his petition for admission to graduate standing must have the approval of the Senate Committee on Graduate Study and the dean of the college.

1. The minimum time in which a candidate may be permitted to complete the degrees is one academic year. In individual cases, where the committee deems it necessary, more than one year may be required.

2. The candidate is required to complete one major subject and not more than two minor subjects in closely related courses. The major subject, including, with the thesis, at least twenty-four credit hours, must be one in which the candidate has received credit in his undergraduate course for at least thirty-six credit hours. The minor subjects, occupying together eighteen credit hours, must be the ones in which he has received credit in his undergraduate course for at least eighteen credit hours each. The choice of the candidate's major and minors is subject to the approval of the committee, the dean of the college, and the major professor.

3. Forty-two of the forty-eight hours required of the candidate must be regular class-room work. Candidates who are graduates of this University may pursue one-half of the required work by correspondence, provided that their undergraduate records are satisfactory to the committee and to the dean of the college.

4. A student may be admitted to graduate standing without becoming a candidate for a degree by permission of the committee and the dean of the college.

*To be chosen with the advice and consent of the candidate's major professor.

SPECIAL COURSES IN THE DEPARTMENT OF FINE ARTS

The department of Fine Arts offers special courses, the completion of which is attested to by a diploma or certificate. The purpose of these courses is to give opportunity to persons who do not desire to become candidates for a degree, but who wish to do special work in music, together with a small amount of work in courses of a general cultural nature, in preparation for teaching, or as a basis for further study.

Candidates for a certificate in piano or voice must meet the residence and registration requirements and must complete satisfactorily the following course of study:

First Year

	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Theory of Music 111, 112, 113	3	3	3
Theory of Music 114, 115, 116	3	3	3
Theory of Music 117, 118, 119	3	3	3
*Piano, Violin or Voice	1	1	1
Psychology 140, 142, 230	4	4	4

Second Year

	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Theory of Music 211, 212, 213	3	3	3
*Piano, Violin or Voice			

Candidates for a diploma in music must meet the entrance, residence and registration requirements, and must complete satisfactorily the following courses of study. Students who receive this diploma must show evidence of four years of college training in music.

First Year

	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
English 141, 142, 143	4	4	4
Foreign Language	3-5	3-5	3-5
History or Economics	3-5	3-5	3-5
Theory of Music 111, 112, 113	3	3	3
Theory of Music 114, 115, 116	3	3	3
Theory of Music 117, 118, 119	3	3	3
*Piano, Violin or Voice			
Physical Education 111, 112, 113	1	1	1
Psychology 140, 142, 230	4	4	4
	15	15	15

*In instrumental and vocal music no definite number of hours can be stated; the applicant must show the attainment of sufficient knowledge, technique, and ability before a certificate will be granted.

Second Year

	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
English 542, 543, 544	4	4	4
Foreign Language	3-5	3-5	3-5
Theory of Music 211, 212, 213.....	1	1	1
*Piano, Violin or Voice			
Physical Education 211, 212, 213	1	1	1
	17	17	17

DEPARTMENTAL STATEMENTS

ANCIENT LANGUAGES

PROFESSOR STRAUSS, ASSISTANT PROFESSOR HANCOCK

Requirements for a degree in Latin or ancient languages. forty-five credit hours. Students who expect to teach Latin in secondary schools should complete course 147 (148) (149) and at least nine hours of more advanced work.

LATIN

111 (112). LATIN AND GREEK WORD-ROOTS IN ENGLISH.—Requires no knowledge of the Greek language and but one year of Latin. Gives a working knowledge of the common roots used in the formation of English words both technical and general. Especially for students of science who do not continue Latin. Winter and Spring.

ASSISTANT PROFESSOR HANCOCK.

141 (142) (143). ELEMENTARY LATIN FOR PLANNERS.—Grammar and exercises. Caesar, four books. To meet the needs of students in the sciences, and to lay a foundation for those students who intend to continue Latin or the modern languages. Will admit to Latin 131.

PROFESSOR STRAUSS.

131 (132) (133). CICERO'S SPEECHES AND LETTERS.—Six speeches and selections from the letters; a review of forms and syntax; introduction to the use of good English in translation. For students who offer two units of Latin for entrance. See course 114 (115) (116).

ASSISTANT PROFESSOR HANCOCK.

114 (115) (116). ELEMENTARY LATIN COMPOSITION.—Required of all students taking 131 and of those taking 134 who have had no equivalent course. One hour a week.

ASSISTANT PROFESSOR HANCOCK.

134 (135) (136). VERGIL'S AENEID.—Due attention is given to forms, syntax, and prosody, but the chief aim is an appreciation

*In instrumental and vocal music no definite number of hours can be stated; the applicant must show the attainment of sufficient knowledge, technique, and ability before a diploma will be granted. In general, this will require from four to six years of study. In addition to the study of the major instrument the candidate will be required to spend at least one year in the study of some other instrument or of voice subject to the approval of the head of the department.

of the poem as literature. For students who offer three units of Latin for entrance. See course 114 (115) (116).

PROFESSOR STRAUSS.

147. CICERO'S ESSAYS.—The *De Amicitia*, with a thorough review of forms and syntax at the beginning. Autumn and Winter.

148. LIVY.—Selections from Livy, Books XXI-XXII. Winter and Spring.

149. LATIN COMEDY.—The *Phormio* of Terence. Spring.

These courses, in any order, are open to those who have had four units of Latin, or 134-136.

PROFESSOR STRAUSS,

ASSISTANT PROFESSOR HANCOCK.

531. CICERO.—Selections from the Letters. Autumn.

532. JUVENAL AND MARTIAL.—Juvenal's Satires; Martial's Epigrams. Winter.

533. PLINY.—Selections from the letters. Spring.

The incidental object of courses 531-533 is to acquaint the student with Roman public and private life. Prerequisite: Latin 147-149.

PROFESSOR STRAUSS.

511 (512) (513). ADVANCED LATIN COMPOSITION.—Translation of English narrative and study of Latin idioms. Essential to students who are preparing to teach Latin. Prerequisite: Latin 147-149.

PROFESSOR STRAUSS.

534 (535) (536). ROMAN POETRY.—Reading of selections from Roman poets. An attempt made to secure a good general view of the whole field of Roman poetry. Prerequisite: Latin 531-533.

ASSISTANT PROFESSOR HANCOCK.

537. HISTORY OF ROMAN LITERATURE.—Mackail's Latin Literature, supplemented by lectures and assigned reading in English translations of the more important authors. Winter.

538. GREEK AND ROMAN MYTHOLOGY; ITS USE IN ENGLISH LITERATURE.—A systematic study of the classical myths that underlie all literature. Each student will trace a particular myth through English literature. Those having a knowledge of Latin will investigate Latin sources. Autumn.

539. ROMAN PRIVATE LIFE.—Johnston's Private Life of the Romans. Lectures illustrated by stereopticon and supplemented by collateral reading and reports. Spring.

NOTE.—Courses 537, 538, 539 presuppose no knowledge of Latin.

PROFESSOR STRAUSS.

514 (515) (516). LATE LATIN.—To show close connection between Latin and the Romance languages. Open to students who present two entrance units of Latin and who have not less than the equivalent of a full year in college of one Romance language.

PROFESSOR STRAUSS.

GREEK

131 (132). **ELEMENTARY GREEK.**—Assuming a fair knowledge of Latin Grammar, the essentials of Greek form and syntax are covered rapidly, with much illustrative reading and comparatively little drill. For students who offer no Greek for entrance. Autumn and Winter.

ASSISTANT PROFESSOR HANCOCK.

143. **XENOPHON**—Selections from *Anabasis*, *Cyropedia*, and *Memorabilia*; practical review of syntax, some prose composition and sight reading. Prerequisite: Greek 131-132. Spring.

ASSISTANT PROFESSOR HANCOCK.

543 (544). **GREEK LITERATURE IN TRANSLATION.**—To give students of any literature a knowledge of the form and content of the literature that has influenced most widely other literatures. In the first quarter epic and lyric poetry will be studied; in the second, prose and drama. Lectures, class reading, collateral reading, and frequent tests. Winter and Spring.

ASSISTANT PROFESSOR HANCOCK.

BOTANY

PROFESSOR BUCHHOLZ

Requirements for a major in Botany: forty-five credit hours which should include courses 141, 142 (143), 243, 244, 245, 242, and Plant Pathology 452. Bacteriology 351 may be included. Students majoring in Botany are advised to elect courses in Zoology, Chemistry and Geology. Certain advanced courses are given only in alternate years.

141. **ELEMENTARY BOTANY.**—The fundamental structures and physiological processes of higher plants, with special reference to the nature of economic plants. Bacteria, and a few other types of microscopic plants. Elective for Arts students; required of all Agricultural students. Lectures and recitations three hours, laboratory three hours. Autumn. Fee, \$2.50.

PROFESSOR BUCHHOLZ.

142 (143). **ELEMENTARY BOTANY.**—The life histories of the great groups of plants in the order of their evolution, affording a brief general survey of the plant kingdom. Special emphasis placed on the disease producing fungi. In the Spring the work merges into a systematic course in the classification of seed plants. Field trips taken on Saturdays, or during afternoons as part of the laboratory work, for a study of the local flora. Lectures and recitations, two hours, laboratory four hours. Elective for Arts students; required of all Agricultural students. Lectures and recitations three hours, laboratory three hours. Winter and Spring. Fee, \$2.50.

PROFESSOR BUCHHOLZ.

243. **MORPHOLOGY OF THALLOPHYTES**—A detailed morphological treatment of the Thallophytes by groups, with emphasis on

the fresh water algae and the fungi. Lectures two hours, laboratory four to six hours. Prerequisite: 141-143. Autumn. Fee, \$2.50.

PROFESSOR BUCHHOLZ.

244. MORPHOLOGY OF BRYOPHYTES AND PTERIDOPHYTES.—The Bryophytes and Pteridophytes with reference to the important morphological details of their life histories. The study of Pteridophytes includes vascular anatomy. Lectures two hours, laboratory four to six hours. Prerequisite: 141-143. Winter. Fee, \$2.50.

PROFESSOR BUCHHOLZ.

245. MORPHOLOGY OF SPERMATOPHYTES.—The details of the morphology of seed plants, in relation to their evolutionary history. A continuation of course 244. Lectures two hours, laboratory four to six hours. Prerequisite: 141-143, 244. Fee, \$2.50.

PROFESSOR BUCHHOLZ.

551 or 541. PLANT MICROTECHNIQUE.—Practice in the various methods of preparing plant material for microscopic examination. Laboratory eight hours (course 541), or ten hours (course 551). Prerequisite: 141-143. Winter. Fee, \$4.00.

PROFESSOR BUCHHOLZ.

540. NATURE STUDY, PLANT AND ANIMAL LIFE.—The biological subject matter of nature study courses, with emphasis on the material suitable for use in the public schools. Life histories and habits of insects, birds, and other animals, habitat studies of common plants, gross anatomy of flower parts, identification of trees and interdependence of plant and animal life. The principal object to awaken an interest in and appreciation of surroundings. Lectures two hours, field and laboratory four hours, with field trips on Saturdays. Spring. Fee, \$2.50.

PROFESSOR BUCHHOLZ.

552 (542). SYSTEMATIC BOTANY.—The identification and classification of wild and cultivated plants in the vicinity of Fayetteville. The field work will include ecological studies (the Ozark region is especially fine). Correlation of the groups from an evolutionary standpoint. Lecture one hour, laboratory eight to ten hours. Field trips afternoons or Saturdays. Prerequisite: 141-142. Spring. Fee, \$2.50.

PROFESSOR BUCHHOLZ.

645 (or 655). ADVANCED SYSTEMATIC BOTANY.—A second course in the classification and identification of seed plants and ferns. Lectures on the principles of classification, with laboratory work on a more critical study of the local flora. Prerequisite: 552 or 542. Four or five hours of credit. Spring.

PROFESSOR BUCHHOLZ.

242. PLANT PHYSIOLOGY.—The student performs a series of experiments designed to make clear to him in both qualitative and

quantitative sense the salient functions. Laboratory eight hours. Prerequisites: Bot. 141-143, and Chemistry 141-143. Autumn. Fee, \$2.50.

PROFESSOR BUCHHOLZ.

341. GENETICS.—The facts and theories of inheritance. The hypotheses concerned with the problems of evolution. Required of Junior Agricultural students; elective for Arts students. Lectures and recitations three hours, laboratory two hours. Prerequisites: Bot. 141-143, or Zoology 141-143. Winter. Fee, \$2.50.

PROFESSOR BUCHHOLZ.

553. CYTOLOGY.—The cell and the behavior of its component parts during division. The theories attempting to correlate the facts of Mendelian inheritance with cell conditions. Lectures and recitations two hours, laboratory six hours. Prerequisites: 245 and 341. Spring. Fee, \$2.50.

PROFESSOR BUCHHOLZ.

610 (611) (612). BOTANICAL SEMINAR.—Reviews and discussions of articles in current botanical journals by advanced students, faculty members, or specialists of Experiment Station staff. Attendance required of Juniors or Seniors taking a major or minor in botany. One hour of credit per term granted when satisfactory reports are presented by advanced students regularly enrolled for the course.

PROFESSOR BUCHHOLZ.

(For Bacteriology and Plant Pathology see College of Agriculture.)

CHEMISTRY

PROFESSORS HALE, MR. TRIMBLE, MR. HUMPHREYS

The courses in chemistry are planned to meet the needs of students who (1) desire knowledge of the science for its cultural value; (2) need it as a foundation for work in other sciences; (3) are majoring in chemistry or chemical engineering.

Requirements for a Major in Chemistry: forty-five term hours, which should include courses 141 (142) (143), 251, 254 (255), 354 (355).

The department offers a special course leading to the degree of Bachelor of Science in Chemistry (see page 45), which may be pursued as a preparation for the study of medicine, or for technical work in chemistry, or as a basis for graduate study in chemistry. In conjunction with the College of Engineering, there is also offered a course leading to the degree of Bachelor of Chemical Engineering. (See p. 100).

141 (142) (143). GENERAL CHEMISTRY.—An elementary course with a two-fold object: First, to give the student a thorough general knowledge of the principles of chemistry; second, to make chemistry a subject of interest and value, touching so closely everyday life. Lectures, demonstrations and recitations, three

hours, laboratory three hours a week. No prerequisite. Fee, \$4.00 each term.

PROFESSOR HALE, MR. HUMPHREYS, AND ASSISTANTS.

144 (145). GENERAL CHEMISTRY.—The same as the above course, but adapted to the needs of students offering an admission unit in chemistry. Autumn and Winter. Fee, \$4.00 each term.

PROFESSOR HALE, MR. HUMPHREYS, AND ASSISTANTS.

257 (258) (259). CHEMISTRY FOR ENGINEERS.—Prerequisite: Physics 149. Fee, \$5.00 for each term.

PROFESSOR HALE, MR. ———, AND ASSISTANTS.

242. ELEMENTARY ORGANIC CHEMISTRY.—Designed especially for students in Agriculture and Home Economics. Lectures and recitations three hours, laboratory three hours a week. Prerequisite: 141-143. Spring. Fee, \$4.00.

MR. HUMPHREYS.

251, 241. QUALITATIVE ANALYSIS.—A practical course with lectures and recitations dealing with the theory involved. Lectures and recitations two hours, laboratory nine or six hours a week. Prerequisite: 141-143. Autumn and Spring. Fee, \$6.00 and \$5.00 respectively.

MR. TRIMBLE.

232. ADVANCED QUALITATIVE ANALYSIS.—Continuation of 251, with lecture and recitation one hour, laboratory six hours a week. Fee, \$5.00.

MR. TRIMBLE.

254, 244. QUANTITATIVE ANALYSIS.—The theory and practice of the subject, including the most important gravimetric and volumetric methods. Lectures and recitations two hours, laboratory nine or six hours a week. Prerequisite: 241. Winter. Fee, \$6.00 and \$5.00 respectively.

MR. TRIMBLE.

255. ADVANCED QUANTITATIVE ANALYSIS.—Continuation of 254 with similar hours. Spring. Fee, \$6.00.

MR. TRIMBLE.

247. FOOD ANALYSIS.—The general methods of Quantitative Analysis with special reference to foods. Arranged for students in Home Economics. Lectures and recitations two hours, laboratory six hours a week. Prerequisite: 241. Winter. Fee, \$5.00.

PROFESSOR HALE.

354 (355). ORGANIC CHEMISTRY.—The fundamental principles of the subject, illustrated by laboratory work. Lectures and recitations three hours, laboratory six hours a week. Prerequisite: 241. Autumn and Winter. Fee, \$5.00 each term.

MR. HUMPHREYS.

356. ELEMENTARY BIOLOGICAL CHEMISTRY.—A general course

designed for pre-medical and advanced students. Lectures and recitations three hours, laboratory work six hours a week. Prerequisite: 354-355. Spring. Fee, \$5.00.

MR. _____.

359. INDUSTRIAL CHEMISTRY.—The practical application of chemistry to industry, special attention being given to actual or possible manufacturing establishments in this state. One or more inspection trips are taken. Lectures and recitations five hours a week. Prerequisites: 254, 354. Spring.

PROFESSOR HALE.

434. HISTORY OF CHEMISTRY.—The development of chemistry, intended to furnish a helpful basis for the present day science. Lectures and recitations three hours a week. Prerequisites: 254, 354. Autumn.

PROFESSOR HALE.

435 (436). ADVANCED INORGANIC CHEMISTRY.—The underlying facts and principles are studied in some detail. Lectures and recitations three hours a week. Prerequisites: 254, 354. Winter and Spring.

PROFESSOR HALE.

437 (438). ADVANCED ORGANIC CHEMISTRY.—A more thorough study for advanced students. Lectures and recitations three hours a week. Prerequisites: 254, 355.

MR. _____.

451 (452). PHYSICAL CHEMISTRY.—The general principles of natural science with especial reference to the principles, theories and generalizations of chemistry. The method of attacking a problem, the apparatus used, and a study of certain fundamental principles are covered in the laboratory work. Lectures and recitations three hours, laboratory six hours a week. Prerequisites: 255, Physics. Autumn and Winter. Fee, \$5.00 each term.

MR. TRIMBLE.

453. ELECTRO-CHEMISTRY.—The relation of chemical to electrical energy, transformations from one form of energy to the other, certain electro-physical phenomena and industrial applications. Lectures and recitations three hours, laboratory six hours a week. Prerequisite: 451-452. Spring. Fee, \$5.00.

MR. TRIMBLE.

522, 523. INORGANIC PREPARATIONS.—Chiefly laboratory work with an insistence upon the principles and economic value of the process. Six hours a week. Prerequisite: 241. Fee, \$5.00 each term.

PROFESSOR HALE.

524, 525. ORGANIC PREPARATIONS.—Similar to 522, 523. Prerequisites: 241, 355. Fee, \$5.00 each term.

MR. _____.

533. METALLURGY.—Lectures and recitations treating of prin-

ciples and practice three hours a week. Prerequisite: 241. Winter.

MR. TRIMBLE.

537. SPECIAL PHYSICAL CHEMISTRY.—A shorter course for pre-medical students. Lectures and recitations three hours a week. Prerequisites: 244, 354. Spring.

MR. TRIMBLE.

631-639. SPECIAL METHODS IN QUANTITATIVE ANALYSIS.—Sanitary Water Analysis, Petroleum Technology, Electro-Analysis, Ultimate Organic Analysis, Coal and Coke Analysis, Analysis of Road Materials, Analysis of Certain Rocks, etc. Chiefly laboratory work with conferences. The amount of credit to be arranged with the individual student before he registers for the course. Prerequisite: 244. Fee, \$6.00 each term.

PROFESSOR HALE,
MR. TRIMBLE.

816, 817. CHEMICAL SEMINAR.—Members of the faculty, graduates, and advanced students meet weekly for the discussion of articles in the current chemical literature. Prerequisites: 244, 354. Winter.

PROFESSOR HALE.

831. CHEMICAL RESEARCH.—Problems in research for graduates or others considered capable of successfully attacking them. Credit will vary in accordance with the amount of work done.

PROFESSOR HALE.

ECONOMICS AND SOCIOLOGY

PROFESSOR GILLMAN, MR. BLAIR, MR. ———.

This department offers instruction in economic principles in relation to individuals, particular branches of business, and the public welfare.

Requirements for a Major in Economics: Forty-five credit hours, including courses 540, 541, 640, 641, 740, and seminar. Students in the College of Education preparing to teach commercial subjects may complete a major in this department with courses 140, 124, 540, 541, 543, 548, 549, 644, 645, 647, and seven hours of electives.

140. BOOKKEEPING AND ELEMENTARY ACCOUNTING.—The theory and practice of double-entry bookkeeping; the interpretation and classification of accounts; preparation and analysis of statements. Prerequisite: None. Autumn.

MR. ———.

124. COMMERCIAL GEOGRAPHY.—The geographic background of the economic development of man. Prerequisite: None. Winter.

MR. ———.

540 (541). PRINCIPLES OF ECONOMICS.—The fundamentals of economic science and a preliminary survey of economic relations

as organized by private interests and public agencies. Prerequisite: None. Autumn and Winter.

MR. BLAIR,

Mr. _____.

543. BUSINESS ORGANIZATION AND MANAGEMENT.—The principles underlying the development of modern manufacturing, mercantile, and financial establishments. Prerequisite: None. Autumn.

Mr. _____.

544. INSURANCE.—Types of life and property insurance; the social and economic functions of insurance companies; forms of Government insurance. Prerequisite: None. Spring.

Mr. _____.

545. TRANSPORTATION.—Transportation facilities as determinants of market situations; the economics of the good roads movement; the cost and service of inland waterways, steam and electric railways; ocean ports and carriers. Prerequisite: None. Spring.

MR. BLAIR.

546 (547). COMMERCIAL LAW.—The laws that govern business transactions such as contracts, agency, negotiable instruments, bailments, insurance, corporations and the transfer of real and personal property. Prerequisite: None. Winter and Spring.

MR. BLAIR.

433. COMMERCIAL LAW.—For Senior students in Engineering only. A condensation of course 546-547. Spring.

MR. BLAIR.

548. ECONOMIC HISTORY OF THE WORLD.—The economic forces underlying the rise and fall of ancient states; the development of Modern Europe with special reference to the British Empire. Prerequisite: 540-541. Autumn.

MR. BLAIR.

549. ECONOMIC HISTORY OF THE UNITED STATES.—The economic forces that gave rise to the development of the American Republic; the economics of the Civil War; the new tendencies in the relations between our agricultural and industrial interests. Prerequisite: 540-541. Winter.

MR. BLAIR.

640 (641). PRINCIPLES OF SOCIOLOGY.—The forces underlying the development of man as a social being; the origins and directions of societal institutions; societal differentiations and integration. Prerequisite: Geology 144. Autumn and Winter.

PROFESSOR GILLMAN.

642. CHARITIES AND CORRECTIONS.—The nature, causes and treatment of the dependent, defective, and delinquent classes. Prerequisite: 640-641. Autumn.

PROFESSOR GILLMAN.

643. RURAL SOCIOLOGY—The problems of farm and village life in the light of economic science; the community features of rural life designed to give the economic, educational, and ethical accumulation of rural civilization permanent form. Prerequisite: 640-641. Spring.

PROFESSOR GILLMAN.

*644. MONEY AND THE PECUNIARY ORGANIZATION OF MODERN SOCIETY—The evolution and functions of money; the development of modern systems of currencies; the pecuniary organization of modern economic life. Prerequisite: 540-541. Autumn.

Mr. _____.

*645. BANKING PRINCIPLES AND PRACTICES—A practical study of the organization and operation of national banks and the Federal Reserve system; the state banking system (with special reference to Arkansas); trust companies and private banks. Prerequisite: 644. Winter.

Mr. _____.

646. FOREIGN COMMERCE—Historic trade routes and centers; tariffs and trade policies; the principles and operation of foreign exchange. Prerequisite: 645. Spring.

MR. BLAIR.

647. CORPORATION FINANCE—Organization of the corporation; the problem of proper capitalization; the financial plan, sale of securities, management of corporate income, receivership and reorganization. Prerequisite: 645. Spring.

Mr. _____.

740. LABOR PROBLEMS—Origin and development of labor organizations, strikes and boycotts, arbitration, conciliation, and government control; the problem of woman and child labor, profit-sharing and co-operation, the minimum wage, unemployment, and the insecurity of the worker's position. Prerequisite: 540-541. Autumn.

MR. BLAIR.

741. GOVERNMENT REGULATION OF BUSINESS ENTERPRISES—The problems created by the growth of large incorporated business; pools, trusts, holding companies, gentlemen's agreements; the Sherman and Clayton Acts, and subsequent state and federal legislation; the Federal Trade Commission and the recent enlargement of the field of government control. Prerequisite: 540-541. Winter.

Mr. _____.

*742 (743). PUBLIC FINANCE—The theories and methods of raising and disbursing public revenue as applying to Federal, State, and local fiscal systems. Prerequisite: 540-541. Winter and Spring.

PROFESSOR GILLMAN.

*744. SOCIALISM.—The historical background of socialism;

socialism, as a criticism of classical political economy and existing institutions, as a theory of social evolution, and as a program of social reform. Prerequisite: 740. Winter.

MR. BLAIR.

*440 (441) (442). HISTORY OF ECONOMIC THOUGHT.—Senior Seminar.

(1) *Ancient and Medieval*—Economic theories of the Ancient Greeks and Romans and of the Christian Fathers, to the Physiocrats.

(2) *Classical Economics*—Adam Smith to John Stuart Mill.

(3) *Modern Economic Theory*—Stanley Jevons to the beginning of the twentieth century. Prerequisite: 548 and 549.

PROFESSOR GILLMAN.

*443 (444) (445). AGRICULTURAL ECONOMICS.—Senior Seminar.

(1) *Principles of Agricultural Economics* as applied to the concrete problems of rural life; the problem of distribution as touching rents and values of farm lands, farm labor and wages, rates of interest and profits in agriculture.

(2) *Agricultural Buying and Selling*—The organization and methods of marketing of farm products, the problems of price quotations, transportation, futures, inspection and grading, public markets, co-operative buying and selling.

(3) *Rural Finance*—The nature and sources of farm credits, the development and functions of farm credit associations, and the effect of the Federal Farm Loan Act upon agricultural credit. Prerequisite: 540-541.

Course 440 (441) (442) alternates with course 443 (444) (445).

The seminar will consist of one two-hour class meeting and one conference hour each week throughout the year.

PROFESSOR GILLMAN.

ENGLISH

PROFESSOR JONES, PROFESSOR JORDAN, PROFESSOR ADLER, ASSOCIATE PROFESSOR SHEEHAN, ASSISTANT PROFESSOR HOLCOMBE, ASSISTANT PROFESSOR HASTINGS, MISS DAVIS, MR. BERARD, MISS JACKSON

The aim of the courses in the department of English is (1) to train students to write English clearly and correctly, and (2) to teach them to understand and to appreciate the best in literature. Every course in composition, therefore, is accompanied by a considerable amount of required readings, and every course in literature requires a certain amount of written criticism.

Requirements for a Major in English: fifty-four term hours, including courses 141 (142) (143), [or 131 (132) (133)], 542 (543) [or 144 (145) (146)], 531 (532) or 547 or Public Speaking 533 (534), and two from the following three: 641 (642), 643, 644 (645). Students who expect to teach English in the secondary schools should complete at least forty-five term hours in English,

with some credits in literature and some in language. Course 745 should be included.

ENGLISH

131 (132) (133). RHETORIC AND COMPOSITION.—Recitations, themes, conferences, and required reading, three hours a week. Some practice in argumentation, description, and narration, but the chief drill is in expository writing. *Required of all Freshmen in the Colleges of Arts and Sciences and Education, except those who are admitted to English 144-6.*

PROFESSORS JONES, JORDAN, AND ADLER,
ASSISTANT PROFESSORS HOLCOMBE AND HASTINGS,
MISS DAVIS, AND MR. BERARD.

141 (142) (143). RHETORIC AND COMPOSITION.—Four hours a week. *Required of all freshmen in the Colleges of Agriculture and Engineering who present at least three units in English for entrance.*

PROFESSORS JONES AND JORDAN,
ASSISTANT PROFESSORS HOLCOMBE AND HASTINGS,
MISS DAVIS, AND MR. BERARD.

144 (145) (146). COMPOSITION AND LITERATURE —Corresponds, in part, to English 141-3 and intended for those students who have had four years of English in the high school and who have shown marked proficiency in the subject. No student is admitted without the consent of the instructor. About half of the time is devoted to a study of exposition and argumentation and the rest to a study of various types of literature. Three terms. This course may be substituted for English 542-543 as a prerequisite to advanced courses.

PROFESSOR JONES.

231 (232) (233). ENGLISH COMPOSITION —Required of all students in the College of Arts and Sciences who do not make a grade higher than "D" in Freshman English. Consists largely of practice in writing and intensive drill in correct usage of spoken and written English.

331 (332) (333). ENGLISH COMPOSITION —Technical writing, with some study of scientific and technical articles of various kinds. Open only to students in the Colleges of Agriculture and Engineering, who have credit for English 141-143, or its equivalent. Lectures, recitations, and themes throughout the year. Prerequisite: English 141-143.

PROFESSOR JONES.

531 (532). ADVANCED COMPOSITION.—To teach the principles of exposition and to develop the ability to write clear and vigorous prose. Themes, assigned readings, and conferences. Prerequisite: English 131-133. Autumn and Winter.

ASSISTANT PROFESSOR HOLCOMBE AND MR. BERARD.

542 (543). **ENGLISH LITERATURE IN OUTLINE.**—The life and literature of the English people from Anglo-Saxon times to the close of the nineteenth century. Lectures, study of the works of representative authors, reports, and critical essays. Prerequisite: English 131-133. Autumn and Winter.

PROFESSOR JORDAN,

ASSISTANT PROFESSORS HOLCOMBE AND HASTINGS.

544. **AMERICAN LITERATURE.**—Some stress is laid on Colonial and Revolutionary literature. A study of Irving, Cooper, Bryant, Poe, Emerson, Lowell, Longfellow, Hawthorne, Whittier, Holmes, and Whitman, followed by the minor poets of the South. Lectures and recitations. Prerequisite: English 542-543. Spring.

ASSISTANT PROFESSORS HOLCOMBE AND HASTINGS.

545. **ENGLISH PROSE FICTION.**—Various types of prose fiction from the romance of the sixteenth century to George Eliot. Lectures, readings, and critical reports. Prerequisite: English 542-543. Autumn.

ASSISTANT PROFESSOR HASTINGS.

546. **CONTEMPORARY LITERATURE.**—Recent and contemporary English and American poets and novelists. Prerequisite: English 542-543. Winter.

ASSISTANT PROFESSOR HASTINGS.

547. **THE SHORT STORY.**—Consists partly in the reading and criticism of short stories, and partly in story writing. To give the student a sound critical knowledge of the modern short story, and to offer practical training in the writing of fiction. Lectures and recitations. Prerequisite: English 542-543. Spring.

PROFESSOR JORDAN.

548. **EIGHTEENTH CENTURY LITERATURE.**—Primarily a study of the prose and poetry of the Classical period, with an attempt to outline the principles of Classicism. Lectures and recitations. Prerequisite: English 542-543. Winter.

PROFESSOR JORDAN.

549. **BRITISH ROMANTIC POETS OF THE NINETEENTH CENTURY.**—Deals principally with the poetry of Wordsworth, Coleridge, Scott, Byron, Shelley, and Keats. Through the work of these men is traced the development of English Romantic poetry, as related to the life and thought of the nineteenth century. Lectures and recitations. Prerequisite: English 542-543. Autumn.

PROFESSOR JORDAN.

641 (642). **CHAUCER.**—Chaucer's language and literary style. Consent of the instructor necessary. Lectures and recitations. Autumn and Winter.

PROFESSOR JONES.

643. **ANGLO-SAXON.**—To give a knowledge of the earliest form of English. Constant comparison of modern English with

Anglo-Saxon. Lectures and recitations. Prerequisite: English 542-543. Spring.

PROFESSOR JONES.

644 (645). SHAKESPEARE—A critical study of a few plays. Lectures and recitations. Prerequisite: English 542-543. Autumn and Winter.

PROFESSOR JONES.

646. THE DRAMA IN ENGLAND FROM 1580 TO 1642.—The Elizabethan dramatists exclusive of Shakespeare. Prerequisite: English 542-543. Spring.

PROFESSOR JORDAN.

647. TENNYSON AND BROWNING.—Emphasis is placed upon the art and the style of Tennyson and Browning in their relation to modern life. Lectures and recitations. Prerequisite: English 542-543. Winter.

PROFESSOR JORDAN.

648. LATE ELIZABETH.—The greatest examples of lyric poetry, not only in English but in other literatures. Lectures and recitations. Prerequisite: English 542-543. Spring.

PROFESSOR ADLER.

649. THE CONTEMPORARY DRAMA.—Recent plays in Europe and America from the literary, dramatic, and social points of view, with discussion and illustration of dramatic principles. Lectures, readings, and dramatic criticism. Prerequisite: English 542-543. Spring.

ASSISTANT PROFESSOR HOLCOMBE.

721 (722) (723). LITERATURE OF THE BIBLE.—A literary study of the Bible. The first two terms are devoted to the Old Testament and the third term to the New Testament. Lectures, recitations, and parallel readings. Three hours a week, with six term hours' credit for the year. Prerequisite: English 542-543. Spring.

MISS JACKSON.

741. MILTON.—An intensive study of the poetry of Milton, with some consideration of his prose. Lectures and recitations. Prerequisite: English 542-543. Spring.

ASSISTANT PROFESSOR HOLCOMBE.

742. ESSAYS OF THE NINETEENTH CENTURY.—Attention is given chiefly to Lamb, De Quincey, Macaulay, Carlyle, Emerson, Newman, and Arnold. Lectures, readings, and reports. Prerequisite: English 542-543. Spring.

PROFESSOR JONES.

743. LITERARY CRITICISM.—To present the more generally accepted principles of literary criticism and to apply them to the chief types of literature. Consent of instructor necessary. Lectures and recitations. Autumn.

PROFESSOR JONES.

744. **COMPARATIVE LITERATURE.**—General survey of some of the more important works of Continental writers and of literary tendencies since the Renaissance, with stress upon such as have been influential in England. A number of masterpieces, either individually important or representing great movements, read in translation. Consent of instructor necessary. Winter.

PROFESSOR JONES.

745. **THE TEACHING OF ENGLISH.**—The aims, methods, and organization of English in the high school. Practice in the correction of themes, study of some of the classics used for high school reading, and rapid review of some parts of grammar and rhetoric. Consent of the instructor necessary. Spring.

PROFESSOR JONES.

PUBLIC SPEAKING

533 (534). **ARGUMENTATION.**—The aim of the course is twofold: to teach the principles of argumentation and of sound reasoning power; to afford practice in the application of these principles in frequent discussions and debates. Lectures, recitations, reading, and class exercises. Prerequisite: English 131-133. Autumn and Winter.

PROFESSOR JORDAN.

533. **PUBLIC SPEAKING.**—Lecture and text-book work based upon the principles of effective public speaking, and training in both formal and informal address. Lectures, recitations, class exercises. Prerequisite: English 131-133. Spring.

PROFESSOR JORDAN.

541. **INTERCOLLEGIATE DEBATE.**—The question for intercollegiate debate is studied and briefed, and frequent practice debates are held. Open only to students who have been awarded places on the intercollegiate debating squad. Four term-hours' credit.

PROFESSOR JORDAN.

JOURNALISM

537 (538) (539). **NEWSPAPER WRITING.**—Intended for students who expect to make journalism their profession, and for those who desire some training in newspaper methods. Methods of gathering news; work of press associations; news values; writing of news. Various forms of news writing. Made as practical as possible by carrying on class work in connection with student publications. Throughout the year. Prerequisite: English 131-133.

ASSOCIATE PROFESSOR SHLEHAN.

521 (522) (523). **NEWSPAPER EDITING.**—Instruction and practice in editing copy, correcting proof, writing headlines, making up, rewriting, and other details of editing; and in the organization and methods of local, state, and national news gathering.

Open to students who have had Journalism 537-539. Throughout the year.

ASSOCIATE PROFESSOR SHEEHAN.

FINE ARTS

MR. TOVEY, MISS GALBRAITH, MRS. CROCKETT, MRS. BATEMAN,
MR. HASSELL, MR. MITCHELL, MR. HANSARD

The Department of Fine Arts offers courses in the theory of music, piano, violin, voice, art, expression, and history of music.

A statement of the requirements for admission will be found on page 19, for regular students, and on page 29 for special students. A statement of tuition and fees will be found on page 31.

Courses in music leading to a diploma or a certificate are outlined on page 47.

Six term hours of credit toward the Bachelor of Arts degree will be allowed for work in music, of which not more than three hours shall be allowed for courses in piano, violin, and voice. One year in either piano, violin, or voice must be completed in college before the student can enroll for credit in that subject. No credit is allowed unless the student takes at least two lessons a week for a full year.

Credit for pipe organ will be allowed toward the A. B. degree and in the College of Education for the first year's work.

SPECIAL FEES IN THE DEPARTMENT OF FINE ARTS

Piano, or Organ, with Director, per term	\$33.50
Piano, with Assistant, per term	26.50
Voice, Violin, per term	26.50
Study of Opera Libretto, per term	4.00
Harmony, in class, per term	6.00
History of Music, in class, per term	6.00
Counterpoint, per term	6.00
Piano Practice, one hour daily, per term	3.50
Diploma fee, for completion of the special Diploma course in music	5.00
Certificate fee, for completion of the teacher's course in music	2.50

THEORY OF MUSIC

111 (112) (113). HARMONY.—One hour a week.

MR. MITCHELL.

211 (212) (213). ADVANCED HARMONY.—One hour a week.

MR. MITCHELL.

114 (115) (116). HISTORY OF MUSIC.—One hour a week.

MR. HASSELL.

117 (118) (119). APPRECIATION.—One hour a week.

MR. TOVEY

311 (312) (313). COUNTERPOINT.—One hour a week

MR. TOVEY.

PIANO

The aim of the courses in piano music is to develop technical control and the power of musical conception as adapted to artistic ends.

PREPARATORY GRADES.

MR. TOVEY,
MR. HASSELL,
MR. MITCHELL.

INTERMEDIATE GRADE.

MR. TOVEY,
MR. HASSELL,
MR. MITCHELL.

ADVANCED GRADE.

MR. TOVEY,
MR. HASSELL,
MR. MITCHELL.

ACCOMPANIMENT.

MR. TOVEY.

THE TEACHING OF MUSIC.—A course designed for students who expect to teach music.

MR. TOVEY,
MR. HASSELL.

VIOLIN

The instruction in violin music is designed to develop correct technique. In addition to the studies, the student is given compositions of standard composers.

MR. HANSARD.

VOICE

The purpose of instruction in this branch of music is the correct production of tone and the building and development of the voice according to the old Italian method. Special stress is laid on breath control, accuracy of tone, distinct articulation, the study of intervals, scale building, sight reading, and phrasing.

MRS. BATEMAN.

PUBLIC SCHOOL MUSIC, AND SUPERVISORS' COURSE.

MRS. BATEMAN.

THEORY AND PRACTICE OF ART.

The plan of incorporating a practical school of drawing and painting in a college course has been demonstrated as not only possible but very successful. The studio work is conducted in the same manner as in the purely technical art school, while the students have the added advantage of doing regular academic work, which renders them more sensitive to artistic impression.

No tuition is charged for these courses.

121 (122) (123). DRAWING. Drawing from casts, life, and

perspective problems. Four hours a week. Students may enter at beginning of any term.

MISS GALBRAITH.

‡521 (522) (523). STILL LIFE AND LANDSCAPE PAINTING.—Painting still life and landscape with original composition. Four hours a week. Students may enter at beginning of any term.

MISS GALBRAITH.

124 (125) (126). ELEMENTARY DESIGN.—Two hours of theory and practice of design, and two hours of instruction and practical application of the principles of design to definite problems in costume and interior decoration.

MISS GALBRAITH.

‡524 (525) (526). CONSTRUCTIVE DESIGN.—Applies well recognized principles of general design to specific materials and problems encountered in the Industrial Arts. Four hours a week.

MISS GALBRAITH.

127 (128) (129). NORMAL ART.—Presents the teaching of art in the public schools not as "Drawing" from a realistic point of view, but design and color as the basis of an art related to the industries with utility as the supreme test. Four hours a week.

MISS GALBRAITH.

‡527 (528) (529). ADVANCED NORMAL ART.—A continuation of course 127-129. Four hours a week.

MISS GALBRAITH.

†These courses may not be offered in 1921-22.

EXPRESSION

The aim of the courses in this department is (1) to secure naturalness and freedom from self-consciousness in reading and speaking; and (2) to train the student to arrive at a correct understanding of literature and the appreciation of its spirit and essence through vocal interpretation. The student is made to realize that the reader's concept is mental. The voice and body are trained to willing obedience to this mentality. Close attention is given to voice culture and correct articulation.

131 (132) (133). VOCAL EXPRESSION.—First term, the fundamental principles in the correct use of the body and voice in speaking and reading; second and third terms, accuracy of observation and care in analysis. The student is trained to read aloud simply, easily and naturally, from the Old and New Testament, Emerson, Longfellow, and Shakespeare. Story telling, speech-making, and dramatic interpretation.

MRS. CROCKETT.

221. THE TEACHING OF READING.—For prospective public school teachers, aiming to give a definite, practical method of instruction which shall apply to each grade. Prerequisite: 131-133 Autumn.

MRS. CROCKETT.

521 (522). **VOCAL INTERPRETATION.**—An advanced course in the interpretation of literature. Special attention given to the study of Tennyson, Browning, the dramatic monologue, various forms of literature, and literary analysis. Prerequisite: 131-133. Autumn and Winter.

MRS. CROCKETT.

531 (532) (533). **DRAMATIC INTERPRETATION OF SHAKESPEARE'S PLAYS.**—A careful analysis and reading of three or four plays. At the end of the year one of the plays will be given in costume by the members of the class. Students are advised to take English 644 (645). Two terms required. Prerequisite: 131-133.

MRS. CROCKETT.

523 (524) (525). **VOCAL EXPRESSION AS ART.**—Impersonation, gesture, dialect, reading, recitation, preparation of programs, and "cutting" and adapting selections for the platform. Students required to prepare selections and present them before the class for criticism. One or two hours a week. Prerequisite: 131-133. week.

MRS. CROCKETT.

534 (535) (536). **THE ART OF PLAY READING.**—Plays are read aloud or put into rehearsal in order that students may vitalize the character and perceive the fundamental thing—the reaction of one thought and emotion upon another. Frequent readings by the instructor from masterpieces of the drama. The class is affiliated with the Drama League of America. Open only to advanced students. Two terms required. Prerequisite: 131-133, or the equivalent.

MRS. CROCKETT.

GEOLOGY

PROFESSOR CADY

Requirements for a Major in Geology: forty-five term hours, not including 146; in addition, English 531, 532, or its equivalent; also 12 term hours in each of four subjects other than Geology included in Group 2, page 43; and either an additional 6 term hours in any two of the subjects except Geology included in Group 2, or an additional 12 term hours in any one of these subjects other than Geology. Students expecting to teach General Science should take 144-145, or either 144 or 145, and 147-149.

144. **GEOGRAPHY.**—Elements of physical and human geography. Primarily for students who expect to teach General Science, and for students in Economics, Sociology, and History. Reduced credit (3 hours) when taken in Junior or Senior year. No prerequisite. Autumn. Fee, \$2.00.

PROFESSOR CADY.

145. **PHYSIOGRAPHY AND METEOROLOGY.**—Land forms, weather,

and climate. Three recitations and two hours of laboratory. No prerequisite. Winter. Fee, \$2.00.

PROFESSOR CADY.

146. **ELEMENTARY GEOLOGY.**—A brief course mainly in structural and historical geology. Three recitations and two hours of laboratory. No prerequisite. Spring. Fee, \$2.00.

PROFESSOR CADY.

147 (148) (149). **GENERAL GEOLOGY.**—The beginning course for students expecting to major in Geology. Three recitations and two hours of laboratory. Prerequisite: one year of accredited high school, or of college, chemistry. Fee, \$2.00 each term.

PROFESSOR CADY.

221 (222) (223). **COMMON ROCKS AND MINERALS.**—Including elementary crystallography and blow-pipe analysis. Four hours of laboratory, with occasional lectures and recitations. Prerequisite: 147-149. Fee, \$2.00 each term.

PROFESSOR CADY.

224 (225) (226). **HISTORICAL GEOLOGY.**—Prerequisites: 147-149; Zoology: 144-146. Fee, \$2.00 each term.

PROFESSOR CADY.

230. **PHYSIOGRAPHY OF THE UNITED STATES.**—Prerequisites: 145 and 146, or 147-149, or 330. Winter. Fee, \$2.00.

PROFESSOR CADY.

321. **FIELD GEOLOGY.**—Equivalent of six hours of laboratory work a week. Prerequisites: 147-149, or 330, and mechanical drawing equivalent of Engineering 121 and Mathematics 150. Spring. Fee, \$2.00.

PROFESSOR CADY.

330. **ENGINEERING GEOLOGY.**—Open to Junior or Senior Engineering students only. Autumn. Fee, \$2.00.

PROFESSOR CADY.

331. **BLOW-PIPE ANALYSIS AND DETERMINATIVE MINERALOGY.**—Six hours of laboratory. Prerequisites: 330 or 147-149, 221-223. Open to advanced students in Chemistry who have had Geology 147-149. Fee, \$7.50.

PROFESSOR CADY.

332. **GEOLOGY OF PETROLEUM AND NATURAL GAS.**—Prerequisites: 147-149, or 330. Spring. Fee, \$2.00.

PROFESSOR CADY.

334. **ECONOMIC GEOLOGY OF THE NON-METALLIC MATERIALS.**—Prerequisites: 147-149, 221-223. Autumn. Fee, \$2.00.

PROFESSOR CADY.

335 (336). **ECONOMIC GEOLOGY OF THE METALS.**—Prerequisites: 147-149, 221-223, 224-225. Winter and Spring (1-22-23 and alternative years.) Fee, \$2.00 each term.

PROFESSOR CADY.

GERMAN

PROFESSOR ADLER

(See also Department of English)

The aim of the work in the department of German is primarily to acquaint the student with the German language and literature as a means of culture. The practical value of a knowledge of German is, however, not neglected, as is indicated by the courses in scientific reading and composition. The excellent collection of German books in the University library offers unusual facility for advanced work in literature. Graduate courses will be offered as called for.

Requirements for a Major in German—forty-eight term hours. Students preparing to teach German should consult the head of the department as early as possible.

131 (132) (133). **ELEMENTARY GERMAN.**—Grammar, composition, and the reading of easy prose and poetry. No prerequisite.

PROFESSOR ADLER.

231 ((232) 233). **SCIENTIFIC GERMAN**—Reading and discussion of works of a general, as well as more specialized, scientific nature. Prerequisite: 131-133.

PROFESSOR ADLER.

521 (522) (523). **INTRODUCTORY COMPOSITION**—A thorough review of grammar and practice in the art of composition. Prerequisite: 131-133.

(Alternates with course 627-629).

PROFESSOR ADLER.

534 (535) (536). **MODERN PROSE AND POETRY**—Reading and interpretation of eighteenth and nineteenth century authors. Prerequisite: 131-133.

(Alternates with course 631-633).

PROFESSOR ADLER.

631 (632) (633). **GOETHE AND SCHILLER**—The lives and selected works of these authors; collateral reading and reports. Prerequisites: 231-233, or 521-523, or 534-536.

(Alternates with course 534-536).

PROFESSOR ADLER.

624 (625) (626). **LYRICS AND BALLADS**—The lyric and ballad as literary forms. Prerequisites: 231-233, or 521-523, or 534-536.

PROFESSOR ADLER.

627 (628) (629). **COMPOSITION AND CONVERSATION**—Conversation and original composition. Prerequisites: 231-233, or 521-523, or 534-536.

(Alternates with course 521-523).

PROFESSOR ADLER.

731 (732) (733). HISTORY OF GERMAN LITERATURE.—The chief literary movements and monuments of German literature from the earliest times to the present. Prerequisites: 631-633, or 624-626, or 627-629.

(Alternates with course 727-729).

PROFESSOR ADLER.

734 (735) (736). GOETHE'S FAUST—Interpretation and appreciation of the poem as an expression of the artist's personality and Weltanschauung. Prerequisites: 631-633, or 624-626, or 627-629.

PROFESSOR ADLER.

727 (728) (729). TEACHERS' COURSE—Discussion of problems and methods of teaching German. Collateral reports and practice teaching. Prerequisites: 731-733, or 734-736.

(Alternates with course 731-733).

PROFESSOR ADLER.

831 (832) (833). GERMAN LITERATURE IN ENGLISH TRANSLATION—Interpretation of literary masterpieces with collateral reading. Treated from the standpoint of comparative literature. Credit will be granted by the Department of English for this course. While counting for credit, this course may not be used to satisfy the foreign language requirement of thirty term hours. Open to Sophomores, Juniors, and Seniors. No knowledge of German required. No prerequisite.

PROFESSOR ADLER.

HISTORY AND POLITICAL SCIENCE

PROFESSOR THOMAS, ASSISTANT PROFESSOR CLEVEN, AND ASSISTANT PROFESSOR HANCOCK

The courses in this department are designed to form part of a general cultural education. They are essential to a thorough preparation for law, journalism, politics, ministry, or any other public calling. Course 131 (132) (133) is foundation work and should be required in the Freshman year.

Requirements for a Major in History. Forty-five credit hours in history and political science. Students expecting to teach history in the secondary schools should complete at least twenty-seven credit hours in the department. Course 131 (132) (133) should be the basis for this work, and courses 531-536 should follow.

HISTORY

131 (132) (133). INTRODUCTION TO CONTEMPORARY CIVILIZATION—The fundamentals of present-day civilization. A few weeks' review of the principal geographical features of the world in reference to human habitation; then modern social, economic,

and political conditions and ideals in the light of history. Mostly the period since 1700. No prerequisite. Not divisible.

PROFESSOR THOMAS,
ASSISTANT PROFESSOR CLEVEN.

531 (532) (533). HISTORY OF THE UNITED STATES SINCE 1776.—A general course, dealing with political (including international) economic, and social questions. Some attention given to geography in its bearing upon the development of our history. Prerequisite: 131-133, or three years of history in high school.

PROFESSOR THOMAS.

534 (532) (533). HISTORY OF ENGLAND TO 1922.—(Not offered in 1921-1922).

ASSISTANT PROFESSOR CLEVEN.

537. FRENCH REVOLUTION AND THE NAPOLEONIC ERA.—France on the eve of the Revolution; French political philosophers; causes and events of the Revolution; and the wars of Napoleon. Prerequisite: 131-132, or Sophomore standing. Autumn.

PROFESSOR THOMAS,
ASSISTANT PROFESSOR CLEVEN.

538. EUROPE IN THE NINETEENTH CENTURY.—A brief survey of Europe in 1815; the development of constitutional government; the unification of Italy and Germany; and the present condition of world politics. Prerequisite: 131-133, or Sophomore standing. Winter.

PROFESSOR THOMAS,
ASSISTANT PROFESSOR CLEVEN.

559. HISTORY OF HISPANIC AMERICA SINCE 1800.—A brief survey of the Spanish and Portuguese colonial systems; a careful study of the wars of emancipation; the rise and development of Hispanic American nations; the relations of these with foreign countries; and the development of Pan-Americanism. Special attention given to the Monroe, Calvo, and Drago doctrines. Prerequisite: 131-133, or Junior standing. Spring.

ASSISTANT PROFESSOR CLEVEN.

631. HISTORY OF GREECE.—The history and institutions of the Greeks. A general knowledge of the subject presumed. Prerequisite: 131-133, or Sophomore standing. Winter.

ASSISTANT PROFESSOR HANCOCK.

632. HISTORY OF ROME.—The history and institutions of the Romans. A general knowledge of the subject presumed. Prerequisite: 131-133, or Sophomore standing. Spring.

ASSISTANT PROFESSOR HANCOCK.

633. THE UNITED STATES, 1736-1789.—(Not offered in 1921-1922).

PROFESSOR THOMAS.

634. THE CIVIL WAR AND RECONSTRUCTION.—Not offered in 1921-1922.)

PROFESSOR THOMAS.

635. THE GREAT WAR.—The balance of power, imperial ambitions, nationalism, colonial and commercial rivalries, the race for armaments, the Great War and its results. Not open to Freshmen. Spring.

PROFESSOR THOMAS.

636 (637) (638). HISTORY OF THE BRITISH EMPIRE.—The period of the formation of the English nation; then the rise and growth of the British Empire. A detailed study of the establishment and growth of the British colonies and dependencies in the West Indies, the Americas, Africa, Asia, and Oceania; the gradual development of a British imperial policy; and the British colonial administrative system. Especial attention paid to the struggle for the democratization of English institutions, and social legislation in the self-governing colonies of the Empire. Prerequisites: 131-133, and six more hours in history, or Junior or Senior standing. Not divisible.

ASSISTANT PROFESSOR CLEVEN.

639. HISTORY OF THE FAR EAST AND THE PACIFIC.—(Not offered in 1921-1922).

ASSISTANT PROFESSOR CLEVEN.

731. AMERICAN DIPLOMACY.—Covers the entire period of the history of the United States, with special attention to the diplomacy of the Revolution and of the second war with England, the Monroe Doctrine and subsequent relations with Latin America, arbitration, Asiatic questions, the Great War, and the peace settlement. Prerequisite: fifteen hours of history or political science. Spring.

PROFESSOR THOMAS.

732. RACE RELATIONS.—The geographical distribution of the races of the world; the present situation of the white race as the dominant race; the history of the negro in America; and the present day aspect of the race (Japanese as well as negro) question in relation to church, education, sanitation, and civil and economic justice. Open only to Juniors and Seniors.

PROFESSOR THOMAS.

POLITICAL SCIENCE

531. AMERICAN STATE AND LOCAL GOVERNMENTS.—A brief review of the development of American state constitutions; then the structure and workings of state governments as organized today, and some of the practical problems now before the states; a brief survey of county and municipal government. Prerequisite: 131-133, or Sophomore standing. Autumn.

PROFESSOR THOMAS.

532. **AMERICAN NATIONAL GOVERNMENT.**—A basic course for more advanced work in government. The organization of our national government and the work of the co-ordinate branches, but most emphasis laid upon the work of administration. Open to students who have completed not less than six credit hours in history. Prerequisite 131-133, or Sophomore standing. Winter.

PROFESSOR THOMAS.

533. **POLITICAL PARTIES.**—The origin and development of political parties in the United States and their present organization and activities. Prerequisite nine hours of history or political science. Spring.

PROFESSOR THOMAS.

534. **COMPARATIVE GOVERNMENT.**—The structures and powers of the national governments of the United States and of the leading European nations. Special attention given to the place of the federal system in public law. Open only to Juniors and Seniors. Autumn.

PROFESSOR THOMAS.

535. **INTERNATIONAL LAW.**—The development of international law and of the usages and principles now considered binding on civilized nations. Open only to Juniors and Seniors. Considerable outside reading. Winter.

PROFESSOR THOMAS.

MATHEMATICS AND ASTRONOMY

PROFESSOR DROKE, PROFESSOR HARDING, EMERITUS ASSOCIATE PROFESSOR DUNN, MISS HUGHES, MR. TAYLOR

The courses in this department are designed to meet the requirements of (1) students in engineering; (2) students who expect to teach mathematics; and (3) students who are interested in mathematics for the sake of the subject itself.

Requirements for a Major in Mathematics: fifty credit hours, including courses 154, 155, 156, 234 (235) (236), 531 (532), 541 (542) (543), and 633 (634) (635), or 631 (632), or their equivalent. Students in engineering may elect, in addition to the prescribed courses, 631 (632). Students who are preparing to teach mathematics in the secondary schools must complete Mathematics 154, 155, 156, 234 (235) (236), 541 (542) (543), 633 (634) (635), 534, 521 (522), and Astronomy 151 (152). Students who desire only a general knowledge of the subject may take Mathematics 154 (155) (156), and Astronomy 151 (152).

MATHEMATICS

51 (52). **PLANE GEOMETRY.**—A collegiate treatment of plane geometry designed for students who offer no geometry for entrance. May be taken by students in the colleges of Engineering

and Agriculture to remove entrance deficiencies. Five hours a week. Autumn and Winter.

MISS HUGHES.

151 (152). PLANE GEOMETRY.—Same as 51 (52). For students in the Colleges of Arts and Sciences, and Education. Autumn and Winter.

PROFESSOR HARDING.

54. ELEMENTARY ALGEBRA.—A collegiate treatment of advanced high school algebra, designed for students who offer only one unit in algebra for entrance. May be taken by students in the colleges of Engineering and Agriculture to remove entrance deficiencies. Five hours a week. Autumn.

PROFESSOR HARDING.

154. ELEMENTARY ALGEBRA.—Same as 54. For students in the Colleges of Arts and Sciences, and Education. Autumn.

MISS HUGHES.

155. SOLID GEOMETRY.—Primarily for students in the Colleges of Arts and Sciences, and Education, who offer one unit of plane geometry for entrance. Spring. Prerequisite: 152.

MISS HUGHES.

156. PLANE TRIGONOMETRY.—Especially for students in the Colleges of Arts and Sciences, and Education, who offer one unit of plane geometry for entrance. Autumn and Winter. Prerequisite: 154.

PROFESSOR DROKE.

157. COLLEGE ALGEBRA.—Primarily for students in engineering who offer at least one and one-half units in algebra for entrance. Autumn.

MISS HUGHES,
MR. TAYLOR.

128. SOLID GEOMETRY.—Primarily for students in engineering. Third term of Freshman year. Prerequisite: 156.

MISS HUGHES,
MR. TAYLOR.

139. ADVANCED ALGEBRA.—Primarily for students in engineering. Third term of Freshman year. Prerequisites: 156, 157.

MISS HUGHES,
MR. TAYLOR.

234 (235) (236). ANALYTIC GEOMETRY.—Primarily for students in the Colleges of Arts and Sciences, and Education, who offer at least one unit in algebra and one unit in plane geometry for entrance. Prerequisite: 156.

MISS HUGHES.

237 (238) (239). DIFFERENTIAL AND INTEGRAL CALCULUS.—Ar

introductory course. May be taken by Sophomores together with 234 (235) (236). Prerequisites: 157, 156, 139.

MISS HUGHES.

247. ALGEBRA AND PLANE TRIGONOMETRY.—For students in the courses in agriculture, including a study of factoring, fractional equations, theory of exponents, radicals, and quadratic equations; trigonometric functions, functions of multiple and sub-multiple angles, and solution of triangles. Autumn.

MR. TAYLOR.

251 (252). DIFFERENTIAL AND INTEGRAL CALCULUS.—For students in engineering. Winter and Spring. Prerequisite: 256.

MR. TAYLOR.

256. ANALYTIC GEOMETRY.—A continuation of course 128, primarily for engineering students. First term of Sophomore year. Prerequisites: 128, 157.

MISS HUGHES,
MR. TAYLOR.

531. ADVANCED ALGEBRA.—For students who have completed course 154. Winter and Spring.

PROFESSOR DROKE.

541 (542) (543). DIFFERENTIAL AND INTEGRAL CALCULUS.—For Juniors and Seniors in the College of Arts and Sciences. Prerequisites: 155, 156, 235.

PROFESSOR DROKE.

534. THE TEACHING OF SECONDARY MATHEMATICS.—For prospective high school and elementary school teachers. Prerequisites: 155, 156.

PROFESSOR DROKE.

521 (522). HISTORY OF MATHEMATICS.—Recommended to those majoring in mathematics. Prerequisites: 234-236.

PROFESSOR DROKE.

633 (634) (635). THEORY OF EQUATIONS.—Prerequisites: 531-532.

PROFESSOR HARDING.

631 (632). DIFFERENTIAL EQUATIONS.—Prerequisites: 543, or 251, 252.

PROFESSOR DROKE.

ASTRONOMY

151 (152). ELEMENTARY DESCRIPTIVE ASTRONOMY.—Lectures and recitations five hours a week, with occasional meeting at night for observation. No knowledge of college mathematics necessary. Autumn and Winter.

PROFESSOR HARDING.

531 (532) (533). MATHEMATICAL ASTRONOMY.—Astronomical

co-ordinates, parallax, time, and determination of latitude. Prerequisites: Math. 155, 156.

PROFESSOR HARDING

MILITARY ART

CAPTAIN HALPINE, SERGEANTS GREATHOUSE, KIKER, AND
LUKOWSKI

Under the provisions of the Act of Congress, approved July 2, 1862, all male students in their Freshman and Sophomore years are required to take Military Art. The course may be elected in the Junior and Senior years. An officer of the United States Army is detailed to act as professor. The main object of the military instruction is to qualify college trained men to become officers of Infantry. The training likewise fits the student for the full duties of citizenship and gives him the normal physical development necessary for his continued well-being through life.

RESERVE OFFICERS' TRAINING CORPS

The University of Arkansas has complied with the requirements of the War Department and has been officially designated as one of the civil institutions at which shall be maintained units of the Senior Division of the Reserve Officers' Training Corps. Eligibility to membership in this Corps is limited to students of institutions in which units of such a Corps are established, who are citizens of the United States, who are not less than fourteen years of age, and whose physical condition indicates that they are fit to perform military duty, or will be so fit upon arrival at military age.

When any member of the Senior Division of the Reserve Officers' Training Corps has completed the first two academic years in that division; has been selected for further training by the president of the institution and its professor of military science and tactics; and has agreed in writing to continue in the corps for the remaining two years of his course in the institution, devoting five hours per week to the military training prescribed by the Secretary of War, he will be furnished, at the expense of the United States, commutation of subsistence during the remainder of his service in the corps. This commutation amounts to about sixteen dollars per month.

The Corps of Cadets is inspected three times each year by an officer of the United States Army, detailed for that purpose; the result of such inspection is transmitted to the Chief of Staff for the information of the Secretary of War.

As soon as practicable, each member of the corps is furnished by the United States, for use during his service in the corps, a complete uniform to the value of \$27.24. Additional uniform for those attending summer camps, amounting to \$22.82, is furnished. Each man will receive during four years property valued at

\$108.96; and at two summer camps, property valued at \$45.64. Each man may receive commutation of subsistence for 581 days at 53c per day, or \$307.93; he may receive commutation in kind, not paid in cash, for two summers, or 84 days, at 75c per day, or \$63.00; he may receive pay for one summer camp, or 42 days, at the rate of \$1.00 per day. Transportation averages 1,000 miles per summer at 5c per mile, or \$100.00. Total money value of property received, and of pay and commutation made to each man who completes the four year course, \$667.53. There is the privilege of special technical training in various fields without any tuition charges. There is an opportunity to obtain a commission as Second Lieutenant of the Regular Army for a period not exceeding six months, with allowances of the grade and with pay at the rate of \$100.00 per month.

The courses as given below are prescribed by the War Department and are so arranged as to make use of instructors in other Departments of the University.

111 (112) (113). **FIRST YEAR.**—Practical and theoretical instruction in organization and administration; military hygiene; military courtesy and customs of the service; interior guard duty; physical training, including mass athletics; infantry drill, including close and extended order; ceremonies; infantry weapons, including the rifle, bayonet, and infantry pack and equipment.

SERGEANTS GREATHOUSE, KIKER, AND LUKOWSKI.

211 (212) (213). **SECOND YEAR.**—Practical and theoretical instruction in military sketching and map reading; physical training; infantry drill; combat; infantry weapons including rifle, machine gun, and automatic rifle; minor tactics.

CAPTAIN HALPINE, SERGEANT GREATHOUSE.

531 (532) (533). **THIRD YEAR.**—Practical and theoretical instruction in field engineering; physical training; infantry drill; infantry weapons, including the pistol, hand and rifle grenades, trench mortars, and one pounder or 37 mm. guns; minor tactics.

CAPTAIN HALPINE.

631 (632) (633). **FOURTH YEAR.**—Practical and theoretical instruction in physical training; infantry drill; minor tactics; musketry; company paper work and administration; the military history and policy of the United States; the rules of land warfare; military law.

CAPTAIN HALPINE.

PHYSICAL EDUCATION (FOR WOMEN)

MISS WILLIAMS

The purpose of the work in this department is to improve the standard of health, and to increase the physical efficiency of the young women. A physical examination is made of every stu-

dent upon entrance and at such intervals throughout the year as may seem necessary. The work is conducted in the indoor gymnasium and during suitable weather on outdoor courts. The uniform worn consists of a white middie blouse, black serge bloomers, and gymnasium shoes purchased at the University. The courses in physical education are required of all women students during their Freshman and Sophomore years. A maximum of nine credit hours may be used toward graduation.

111 (112) (113). **ELEMENTARY PHYSICAL EDUCATION**—General gymnastic work, games, and lectures on personal hygiene. Two hours.

MISS WILLIAMS.

211 (212) (213). **INTERMEDIATE PHYSICAL EDUCATION**—(1) General gymnastic work, one hour; (2) athletic games, one hour; (3) aesthetic and folk dancing, one hour. Students may elect either (1) and (2), or (1) and (3).

MISS WILLIAMS.

511 (512) (513). **ADVANCED GYMNASTICS**—Advanced gymnastic work; fencing, field sports, and outdoor games. Two hours.

MISS WILLIAMS.

514 (515) (516). **ADVANCED DANCING**—Two hours.

MISS WILLIAMS.

517 (518) (519). **THE TEACHING OF PHYSICAL EDUCATION**—Theoretical and practical work, designed for prospective public school teachers. Two hours.

MISS WILLIAMS.

PHYSICS

PROFESSOR RIPLEY, ASSISTANT PROFESSOR DAYLEY

The courses in this department are designed (1) for students in the courses in engineering, agriculture, chemistry, and home economics, as part of the required curriculums and (2) for students in other courses who desire a general knowledge of the subject or who wish to prepare for the study of law or medicine, or for teaching or graduate work.

Requirements for a Major in Physics—forty-five term hours. Students who are preparing to teach physics in the secondary schools should complete as a minimum requirement courses 141-143, 231-233, and 517-519.

141 (142) (143). **EXPERIMENTAL PHYSICS**—A non-mathematical course in physics designed for students who desire to secure a general knowledge of the subject and of its application to everyday life. The experimental and practical phases are stressed. Open only to students offering no entrance credit in physics. Lec-

tures and recitations three hours a week, laboratory work two hours a week. Fee, \$1.50 each term.

ASSISTANT PROFESSOR BAYLEY.

144 (145) (146). **EXPERIMENTAL PHYSICS.**—Similar to 141 but more advanced. Open to students offering physics for entrance credit. Lectures and recitations three hours a week, laboratory work two hours a week. Fee, \$1.50 each term.

PROFESSOR RIPLEY.

147 (148) (149). **GENERAL PHYSICS.**—A general course more mathematical than the courses described above. Not open to students who have taken course 141 or 144. Required of all engineering students. The application of physical laws to engineering problems and the solution of such problems. Mechanics, heat, electricity and magnetism are emphasized. Lectures and recitations three hours a week, laboratory work two hours a week. Fee, \$1.50 each term.

PROFESSOR RIPLEY,

ASSISTANT PROFESSOR BAYLEY.

231 (232) (233). **THEORETICAL PHYSICS.**—An advanced course in General Physics dealing with the development of formulae and the application of formulae and laws to the solving of problems. Lectures and recitations three hours a week. Prerequisites: 141-143, or 144-146, or 147-149.

PROFESSOR RIPLEY.

517 (518) (519). **LABORATORY PHYSICS.**—Exercises in the determination of moments of inertia, of center of mass, of Young's modulus, coefficients of viscosity, and of thermal expansion; of heats of fusion and vaporization, of capacity, of high and low potentials, Photometric measurements. Laboratory work two hours a week. Prerequisites: 141-143, or 144-146, or 147-149. Term credit allowed. Fee, \$1.50 each term.

PROFESSOR RIPLEY,

ASSISTANT PROFESSOR BAYLEY.

531 (532). **HEAT.**—Thermometry, heats of combustion, specific heats of solids, liquids and gases; vapor densities, and the laws of thermo-dynamics. Lectures and recitations two hours a week, laboratory work three hours a week. Autumn and Winter. Prerequisite: 231-233. Fee, \$1.50 each term.

PROFESSOR RIPLEY.

634 (635). **LIGHT.**—The modern theory of light with a consideration of the recent advances in this branch of physics. The theory of optical instruments, dispersion, diffraction, polarization, etc. Lectures and recitations two hours a week, laboratory work three hours a week. Autumn and Winter. Prerequisite: 231-233. Fee, \$1.50 each term.

PROFESSOR RIPLEY.

638 (639). **ELECTRICAL MEASUREMENTS.**—Calibration of electrical instruments, measurements of high and low resistances, determination of current, of electromotive force, of inductance, and of capacity. Lectures and recitations two hours a week, laboratory work three hours a week. Winter and Spring. Prerequisite: 231-233. Fee, \$1.50 each term.

ASSISTANT PROFESSOR BAYLEY.

631 (632) (633). **KINETIC THEORY OF GASES.**—The application of the kinetic theory to diffusion and pressure of gases, and to temperature and specific heats of gases, liquids, and metals. The past fruitfulness and future promise of the theory. Lectures and recitations three hours a week. Prerequisite: 231-233.

ASSISTANT PROFESSOR BAYLEY.

537 (538) (539). **RECENT ADVANCES IN PHYSICAL SCIENCE.**—Lectures on the electron theory, on conduction of electricity through gases, on radioactivity, etc. Lectures three hours a week. Prerequisite: 231-233.

PROFESSOR RIPLEY.

PSYCHOLOGY AND PHILOSOPHY

PROFESSOR A. M. JORDAN

The aim of the courses in Psychology and Philosophy is primarily to acquaint students with the workings of the human mind, and secondarily to make clear and evident the mental factors involved in many of the transactions of everyday life. Students preparing for law, business, medicine, politics, or the ministry will find these courses of great benefit.

Requirements for a Major in Psychology and Philosophy: forty-five credit hours in psychology and philosophy. These must include courses 241, 242, 243, 341, 342, 343 in psychology, and 331 in philosophy.

PSYCHOLOGY

241. **GENERAL PSYCHOLOGY.**—Technical, scientific psychology, especially for those who subsequently take the course in Psychology of the Abnormal, or for those contemplating the study of medicine. Emphasis placed on the psycho-physical equipment of the human being, and the fundamental principles of psycho-physical behavior. Autumn.

PROFESSOR JORDAN.

243. **EXPERIMENTAL PSYCHOLOGY.**—The experimental method and its technique, and the laws of psychology. Problems in the learning process which have direct bearing on sensory motor and perceptual learning, on memory, imagination, and reasoning. Prerequisite: 241. Lectures and laboratory four hours. Winter.

PROFESSOR JORDAN.

244. VOCATIONAL PSYCHOLOGY.—The history of the more important vocations and the manner in which selections have been made for them. The principal occupations and the peculiar needs to be met by those attempting to fill them, with due emphasis on the methods now employed in determining the fitness of individuals. Prerequisite: 241. Spring.

PROFESSOR JORDAN.

341. SOCIAL PSYCHOLOGY.—Public opinion, custom, imitation, psychology of leadership, conflict, discussion, compromise, mob mind, social will, communication, and the crowd. An insight into present social problems by showing how consciousness has been developed in home, school, neighborhood, and society. Prerequisite: 241. Autumn.

PROFESSOR JORDAN.

342. INDIVIDUAL PSYCHOLOGY.—The innate and acquired differences apparent among individuals. The contribution of near ancestry, remote ancestry, maturity, sex, and environment to the facts of individual differences. Prerequisite: 241. Winter.

PROFESSOR JORDAN.

343. PSYCHOLOGY OF THE ABNORMAL.—The psycho-physical conditions and mental phenomena of illusions, hallucinations, dreams, sleep, automatisms, somnambulism, hypnotism, suggestion, dissociation, double and multiple personalities, and the insanities proper. Prerequisite: 241. Spring.

PROFESSOR JORDAN.

345, 346. PHYSIOLOGICAL PSYCHOLOGY.—For those expecting to do extensive work in psychology. A thorough study of the nervous system, and general attempt to trace out the various processes of consciousness. The sensations, perception, learning, thinking from the physiological point of view. Prerequisites: 241, 242. Winter and Spring.

PROFESSOR JORDAN.

531. PSYCHOLOGY OF ADVERTISING.—The fundamental psychological principles underlying successful advertising. The processes of catching and holding attention, of interest and suggestion. Prerequisite: 241. Autumn.

PROFESSOR JORDAN.

PHILOSOPHY

330. LOGIC.—The application of logic to the practical problems of everyday life, including inductive and deductive reasoning, with special reference to argumentation and debate. A foundation for further philosophical study. Prerequisite: Psychology 241..

331. ETHICS.—The growth of ethics in history, and better methods of estimating and controlling conduct. The moral

problems that have confronted people from primitive times to the present, and comparisons between individual and group morality. **Prerequisite:** Psychology 241.

ROMANCE LANGUAGES

PROFESSOR MARINONI, ASSISTANT PROFESSOR CHESKIS, MISS HARGIS

The courses offered in this department are intended to give students a fair knowledge of the French, Italian and Spanish languages and to stimulate knowledge and appreciation of the literary attainments of the Latin people. In the higher courses emphasis is laid especially on the study of literature. In order to give students an opportunity to become familiar with the spoken idiom, several advanced courses are conducted in the language which forms the object of study.

Requirements for a Major in Romance Languages: sixty-six term hours to be chosen from the following courses, exact requirements to be arranged with the professor in charge—French 141 (142) (143), 551 (552) (553), 554 (555) (556), 537 (538) (539), and 525 (526) (527); Spanish 141 (142) (143), 531 (532) (533), and Italian 521 (522) (523); or Spanish 141 (142) (143) and Italian 141 (142) (143), 531 (532) (533). Major students, upon completing the required work, are expected to have a fair speaking knowledge of at least one language. They must also take course 514 (515) (516) offered by the Department of Ancient Languages. Students preparing to teach either French or Spanish in the secondary schools should complete at least thirty-six credit-hours in the language chosen, and in addition include a course in the teaching of modern languages. Such students are urged to do at least one year of practice teaching in the Training High School.

FRENCH

141 (142) (143). **ELEMENTARY FRENCH**—Grammar, reading, dictation, and composition. Pronunciation is carefully taught and oral drill insisted upon.

ASSISTANT PROFESSOR CHESKIS,
MISS HARGIS.

551 (552) (553). **FRENCH PROSE AND POETRY**—Composition, sight reading, syntax, and conversation. Reading of representative works of modern French authors. **Prerequisite:** 141-143.

PROFESSOR MARINONI,
MISS HARGIS.

525 (526) (527). **A survey of French Literature.** **Prerequisite:** 551-553.

PROFESSOR MARINONI.

534 (535) (536). **FRENCH LITERATURE OF THE SEVENTEENTH**

CENTURY.—A general view of the classic period. The most important literary productions are read and analyzed. Lectures and recitations in French, with a considerable amount of outside reading. Prerequisite: 551-553.

ASSISTANT PROFESSOR CHESKIS.

537 (538) (539). **FRENCH LITERATURE OF THE NINETEENTH CENTURY.**—Lectures and recitations in French, with readings from the leading authors of the Romantic period. Prerequisite: 551-553.

PROFESSOR MARINONI.

531 (532) (533). **FRENCH POETRY.**—French poetry of the nineteenth century. Lectures and recitations. Prerequisites: 551-553 and 525-527.

PROFESSOR MARINONI.

514 (515) (516). **FRENCH DRAMA.**—The evolution of the French drama from its origin to the present day. Lectures and recitations in French, with some outside reading. The permission of the instructor must be secured. Prerequisite: 525-527.

PROFESSOR MARINONI.

517 (518) (519). **HISTORICAL FRENCH GRAMMAR.**—Lectures and recitations. The permission of the instructor must be secured.

ASSISTANT PROFESSOR CHESKIS.

637 (638) (639). **BALZAC.**—The life and works of Balzac. Lectures and recitations. Prerequisite: 551-553.

PROFESSOR MARINONI.

ITALIAN

141 (142) (143). **ELEMENTARY ITALIAN.**—Grammar, composition, dictation, and conversation.

PROFESSOR MARINONI.

531 (532) (533). **ADVANCED ITALIAN.**—Syntax, composition, conversation, and reading of representative modern works. The second term will be devoted to the study of Dante's *Inferno*. Prerequisite: 141-143.

PROFESSOR MARINONI.

SPANISH

141 (142) (143). **ELEMENTARY SPANISH.**—Grammar, composition, dictation, conversation, and reading of easy texts.

ASSISTANT PROFESSOR CHESKIS.

MR. _____.

531 (532) (533). **ADVANCED SPANISH.**—Syntax, composition, conversation, and reading of representative modern works. Class work is conducted largely in Spanish. Prerequisite: 141-143.

ASSISTANT PROFESSOR CHESKIS.

534 (535) (536). **SPANISH LITERATURE.**—Lectures, reports, and

reading of standard works. Class work is conducted in Spanish.
Prerequisite: 531-533.

PROFESSOR MARINONI.

537 (538) (539). COMPOSITION AND CONVERSATION.

Mr. _____.

ZOOLOGY

PROFESSOR PICKEL

The courses in zoology are designed to teach the fundamental facts of zoological science, including the laws of development, heredity, variation and correlation, and the economic importance of animals.

Requirement for a Major in Zoology—forty-five credit hours, to include courses 144 (145) (146), 241 (242) (243), 541 (542) (543), 552, 453, or 331, 532. Students preparing to study medicine are advised to select courses 144 (145) (146), 541 (542) (543), 552, 453, and 241 (242) (243). Students who expect to teach zoology in secondary schools should take courses 144 (145) (146), 241 (242) (243), and 533.

144 (145) (146). GENERAL ZOOLOGY.—The fundamental facts of zoological science, including the laws of development, heredity, variation, and correlation. Field work on local fauna. Lectures and recitations two hours, laboratory and field work four hours. No prerequisite. Fee, \$2.25 each term.

PROFESSOR PICKEL.

541 (542) (543). COMPARATIVE ANATOMY OF VERTEBRATES.—An advanced study of the structures and classification of vertebrates. Lectures and recitations two hours, laboratory four hours. Prerequisite: 144-146. Fee, \$3.00 each term.

PROFESSOR PICKEL.

552. ANIMAL HISTOLOGY.—Histological methods of technique. Human tissue is used when possible. Primarily for students preparing for medicine. Lectures and recitations three hours, laboratory four hours. Prerequisite: 144-145. Winter. Fee, \$3.00.

PROFESSOR PICKEL.

453. EMBRYOLOGY.—Vertebrate embryology with regard to organogeny in the chick, pig, and man. Lectures and recitations three hours, laboratory four hours. Prerequisite: 144-146. Spring. Fee, \$3.00.

PROFESSOR PICKEL.

241 (242) (243). PHYSIOLOGY.—The physiology and hygiene of the human body. A knowledge of elementary physiology required. Lectures and recitations two hours, laboratory four hours. Not open to Freshmen. Fee, \$2.25 each term.

PROFESSOR PICKEL.

331. GENERAL HYGIENE.—Personal and public hygiene from a general rather than a technical standpoint. Lectures and recita-

tions two hours, laboratory two hours. Not open to Freshmen. Autumn. Fee, \$1.50.

PROFESSOR PICKEL.

532. THEORETICAL BIOLOGY.—Variation, selection, evolution, heredity, and some of the broader and more general problems of biology. Prerequisite: 141-143, or 144-146. Winter.

PROFESSOR PICKEL.

533. THE TEACHING OF ZOOLOGY.—The selection of courses, methods of instruction, comparison of text books, laboratory equipment and management, collecting and preserving of laboratory material. For prospective high school teachers. Prerequisites: 144-146, or 241-243. Spring.

PROFESSOR PICKEL.

311 (312) (313). ZOOLOGICAL SEMINAR.—Discussion of articles in zoological magazines. Prerequisite: 144-146.

PROFESSOR PICKEL.

COLLEGE OF EDUCATION

The purpose of the College of Education is to unite and correlate the forces of the University which contribute to the preparation of educational leaders in teaching and supervision, whether rural, elementary, secondary, or executive.

The curriculum is based upon the assumption that teachers should have, first of all, and fundamental to all other preparation, a broad and liberal education; secondly, that they should be masters of the special subject they expect to teach; and, thirdly, that this training should be supplemented by professional courses designed to give them a knowledge of the minds of the pupils to be taught and the problems to be met, with a thorough course in practice teaching under experienced critic teachers.

ADMISSION

For a statement of the entrance requirements and a description of the subjects accepted for entrance see page 20.

COURSES OF STUDY

The College of Education offers a four-year course leading to the degree of *Bachelor of Science in Education* (B. S. E.); a graduate course leading to the degree of *Master of Science* (M. S.); and special two- and three-year courses leading to a teacher's certificate.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN EDUCATION

The candidate must meet the entrance, residence, and registration requirements, and must complete satisfactorily at least two hundred and one term hours in approved courses, or one hun-

dred and ninety-eight terms hours in the teacher-training course in Vocational Home Economics, with the following restrictions:

1. Prescribed courses as follows: English 131 (132) (133), nine hours; Education and Psychology, thirty-six hours, including Psychology 140, Education 140, 130, 131, and 240; Military Art, six hours (for men), or Physical Education, six hours (for women).

2. Elective courses to be chosen from the following groups with the restrictions noted below:

Group 1. English, French, German, Greek, Italian, Latin, and Spanish.

Group 2. Astronomy, Botany, Chemistry, Geology, Mathematics, Physics, and Zoology.

Group 3. Economics, Education, History, Political Science, Philosophy, Sociology, and Home Economics.

Group 4. Agricultural subjects, Engineering subjects, Fine Arts, Law, Medicine, Military Art, and Physical Education.

a. The candidate may elect not more than sixty hours from any one subject, and not more than one hundred and twenty hours from any one group, except by special permission of the dean of the college.

b. The candidate must select, not earlier than the beginning of his Sophomore year and not later than the beginning of his Junior year, one major subject, in which he must complete at least forty-five credit hours, and two minor subjects, in which he must complete at least twenty-seven and eighteen credit hours, respectively, subject to the approval of the head of the department and the dean of the college. The major subject in every case shall be chosen from the group in which the student finds the subject matter he is preparing to teach. A description of the major requirements of each department will be found under the departmental statements.

c. The candidate must elect not less than twenty-seven hours from each of the first three groups, unless he choose his major from group 4, or unless he be enrolled in one of the Smith-Hughes vocational courses.

d. Students who find their major or minor in group 4 should in every case consult the Dean concerning their courses of study. The College of Education gives full credit for work in music, i. e., one hour of credit is given in each term for courses 111 to 119 inclusive. However, one year in either piano, violin, or voice must be completed in college before the student may enroll for credit in that subject. This does not apply to pipe organ, which has piano as a prerequisite. No credit is allowed unless the student takes at least two lessons a week.

e. The candidate must conform as closely as possible to the following schedule in the distribution of his work.

Freshman Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
English 131 (132) (133)	3	3	3
Psychology 140	4	..	..
Education 130	3	..	..
Education 140 .....	..	4	..
Education 131 .....	..	3	..
Military Art (or) Physical Education	1	1	1
*Elective	5	5	12
	<hr/> 16	<hr/> 16	<hr/> 16

Sophomore Year

	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Military Art (or) Physical Education	1	1	1
*Elective	16	16	16
	<hr/> 17	<hr/> 17	<hr/> 17

Junior Year

	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
*Elective	17	17	17

Senior Year

	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Education 240	4	4	4
*Elective	13	13	13
	<hr/> 17	<hr/> 17	<hr/> 17

REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE

The degree of *Master of Science* is granted for graduate work based on a four-year undergraduate course and a degree of either *Bachelor of Arts* or *Bachelor of Science in Education* from this institution or any other institution of equal standing. Before a student may become a candidate for the degree, however, his petition for admission to graduate standing must receive the approval of the Senate Committee on Graduate Study and the dean of the college.

1. The minimum time in which a candidate may be permitted to complete the work for the degree is one academic year. In individual cases, when the committee deems it necessary, more than one year may be required.

2. The candidate is required to complete one major subject and not more than two minor subjects in closely related courses, except as noted below. The major subject, occupying with the

*To be chosen with the consent and advice of the candidate's major professor, so as to include not less than ten credit hours in Psychology and Education, and so as to meet the prescribed requirements outlined above.

thesis twenty-four credit hours, must be one in which the candidate has received credit in his undergraduate course for at least thirty-six credit hours. The minor subjects, occupying together eighteen credit hours, must be such in which he has received credit in his undergraduate course for at least eighteen credit hours each.

The admission to candidacy for the Master's degree in the case of men and women of maturity who have clearly demonstrated distinct ability in a special field, and whose undergraduate credits would not meet the numerical requirements of the preceding rule, together with, in every case, the choice of a candidate's major and minors, is subject to the approval of the committee, the dean of the college, and the major professor.

3. Teachers of Smith-Hughes work holding a Bachelor's degree from the University of Arkansas, or from another institution of similar grade, and having met the other Federal requirements for Smith-Hughes teaching, shall be eligible for admission to candidacy for the degree of Master of Science.

4. Forty-two of the forty-eight hours required of the candidate must be regular class-room work. Candidates who are graduates of this University may pursue one-half of the required work by correspondence, provided their undergraduate records are satisfactory to the committee and to the dean of the college.

5. A student may be admitted to graduate standing, without becoming a candidate for a degree, by permission of the committee and the dean of the college.

REQUIREMENTS FOR A TEACHER'S CERTIFICATE

The teacher's certificate is granted in accordance with the law of the State of Arkansas, which reads:

"That the diploma from the teachers' training department of the University of Arkansas shall be equivalent to a teacher's professional license, which shall entitle the holder to teach in any public school in the State of Arkansas for a period of six years from and after the date of issue. At the expiration of said period such diploma may be converted into a life certificate, provided that the character of the work done by the holder thereof, and his or her moral character, shall meet with the approval of the Superintendent of Public Instruction of the State of Arkansas."

The only degree given by the University of Arkansas which in itself entitles the holder to teach in the schools of this state, or of other states requiring professional preparation of its teachers, is the degree of Bachelor of Science in Education. Graduates holding other degrees are required to pass examinations for teachers' certificates, unless they also have certificates granted by the College of Education for not less than thirty-six

hours of professional work, which must include twelve hours of practice teaching under supervision.

A student who intends to take a degree in another college of the University should register in that college. If, in addition, he expects to take the teacher's certificate in the College of Education, he must also be registered in the College of Education during the terms in which he is doing his strictly professional work—Education 130, 131 and 240—as the course is at present arranged. All students are advised to do their practice teaching as late in the college course as possible.

It sometimes happens that the student finds it necessary to engage in teaching after his second year in college. Such student, in order to secure the teacher's certificate at the end of the Sophomore year, must be registered in the College of Education during both the Freshman and Sophomore years. If he intends eventually to take a degree in some other college, he may also register in that College during the Freshman and Sophomore years.

Students in other colleges, who expect to receive the teacher's certificate at some time in the college course, are advised to consult with the dean of the College of Education not later than the end of the Freshman year.

The teacher's certificate is granted to students in the College of Education who have completed the work for their degree, and to those also of its students who have completed one of the following courses: (I) the two-year regular course; (II) the two-year special course in manual training; or (III) the special course in shop work.

I. THE TWO-YEAR REGULAR COURSE

The candidate must meet the entrance, residence, and registration requirements and must complete satisfactorily at least ninety-nine credit hours in approved courses as prescribed in the following course of study:

Subject	CREDIT HOURS		
	AUTUMN	WINTER	SPRING
	TERM	TERM	TERM
English 131 (132) (133)	3	3	3
Psychology 140	4	..	..
Education 130	3	..	..
Education 140 .....	..	4	..
Education 131 .....	..	3	..
Military Art (or) Physical Education	1	1	1
*Elective	5	5	12
	16	16	16

Sophomore Year

Subject	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Education 240	4	4	4
Military Art (or) Physical Education	1	1	1
*Elective	12	12	12
	<u>17</u>	<u>17</u>	<u>17</u>

II. *THE TWO-YEAR SPECIAL COURSE IN MANUAL TRAINING*

The candidate must meet the entrance, residence, and registration requirements and must complete at least one hundred and two credit hours as outlined in the following course of study:

Freshman Year

Subject	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Psychology 140	4	--	--
Education 130	3	--	--
Education 140	--	4	--
Education 131	--	3	--
Mathematics S	5	5	5
Mechanic Arts 123 (124) (125)	2	2	2
Civil Engineering 121 (122) (123)	2	2	2
Trade Courses Cb	--	--	7
Military Art	1	1	1
	<u>17</u>	<u>17</u>	<u>17</u>

Sophomore Year

Subject	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
English 131 (132) (133)	3	3	3
Education 240	4	4	4
Trade Course Ba }	3	3	3
Trade Course Db }			
Drawing 221 (222) (223)	2	2	2
Military Art	1	1	1
Education Elective	4	4	4
	<u>17</u>	<u>17</u>	<u>17</u>

PRACTICE TEACHING

Opportunity for practice teaching in all the usual elementary and secondary subjects, as well as Agriculture, Home Economics, Manual Training, and Physical Training, is provided in the University Training High School. Psychology 140 and Education 130, 131 and 140 are prerequisite to practice teaching. Students should determine as early as possible subjects which they desire to teach and should prepare themselves thoroughly in those fields. No student shall be assigned to practice teaching unless he has

*To be chosen with the advice and consent of the department in which the candidate wishes to secure a recommendation to teach, so as to include not less than ten credit hours in Education and Psychology.

made special preparation in the work for which he is applying.

All assignments to classes are made by the Director of the Training School. Before registering for teaching, students must consult with him and submit, in addition to a recommendation from the department in which special preparation has been made, a statement from the Registrar of the courses completed in Education and in the academic subject which the student proposes to teach. Special blanks for this purpose may be secured at the office of the Director of Training.

RECOMMENDATION BUREAU

The College of Education maintains a Recommendation Bureau, the purpose of which is to place properly in teaching positions those of its students and graduates whose teaching ability is satisfactory to the faculty of this college and whose major professors concur in this recommendation. Since such recommendations are worthless unless based on personal knowledge, the Bureau manifestly cannot place its services at the disposal of teachers concerning whose teaching ability the members of the staff of critic teachers know nothing. It is still possible to find positions for primary and grade teachers who possess a certificate given at the close of two years of college work. It is not possible, however, to place high school teachers in good positions unless they have earned a college degree. Every year there are many more requests for teachers than there are graduates available. Graduates need not leave the state to secure important positions at good salaries. Students looking forward to teaching in other states should, however, confer with the dean as to the requirements for teaching in such states. In general the requirement is a minimum of twenty-seven term hours of academic work following a course in General Psychology.

VOCATIONAL TEACHER TRAINING

The University of Arkansas has been designated by the Federal government as the institution in which all the teacher training in the State of Arkansas under the Smith-Hughes Act shall be done. A Department of Vocational Teacher Training has been established in the College of Education; there have been added to the faculty, also, professors of agricultural education, a professor of education in the trades and industries, a professor of home economics education, and four critic teachers to supervise the practice teaching of students. Other professionally trained critic teachers will be added to the faculty as soon as any considerable body of students is enrolled in the later years of the courses involved.

It is the intention both of the Federal Board, as well as of the Arkansas Board which will have charge of the Smith-Hughes work, that teachers who prepare themselves for the work by graduation from any one of the courses given below shall be

employed for an entire year, rather than for a few months only, and shall receive liberal salaries. A certain amount of practical experience will be required in addition to college graduation. The courses given below in detail are tentative only and probably will be slightly altered from time to time as experience makes necessary.

It is worthy of note that the vocational training courses planned by the University of Arkansas comprised the first state scheme to be approved by the Federal Board.

Candidates for admission to these courses must present fifteen units of high school work or the equivalent. A student desiring to teach Agriculture shall for the first two years take the general agricultural course. At the beginning of the third year, he shall register in both the College of Agriculture and the College of Education. He may then take his degree in the College of Agriculture along with the teacher's certificate in the College of Education, or he may take his degree in the College of Education with agricultural education as a major. Not later than the beginning of the Junior year, and earlier if possible, students expecting to teach agriculture should consult with the Professor of Agricultural Education with regard to the arrangement and selection of courses. The teacher training in vocational agriculture may be taken only by persons who have had at least two years of vocational agricultural experience, or who are acquiring such experience as a part of their training. Each one of these courses covers four college years and is especially prepared for teachers of these respective vocational subjects. Each course consists of two hundred and four term hours of work, a certain part of which must be in scientific project work in the vocation involved, and twenty-nine or thirty term hours in professional subjects, including practice teaching.

THE FOLLOWING PROFESSIONAL COURSES ARE AN UNVARYING REQUIREMENT

Psychology 242	Psychology of Teaching	4 term hours
Education 130	The Teaching Process	3 term hours
Education 131	Observation and Curriculum	3 term hours
Education 240	Practice Teaching	12 term hours
Education 243	Principles of Secondary Education	4 term hours
Education 330	or 332, or Home Economics 341, Vocational Methods Course	3 or 4 terms hours

FOUR-YEAR COURSE IN VOCATIONAL HOME ECONOMICS TRAINING

During the first two years of this course students will take the regular course in Home Economics.

The following is the outline of the Junior and Senior work in this course agreed upon by the College of Agriculture and the College of Education.

Junior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Bacteriology 352	5	..	..
Home Economics 331, 332	3	3	..
Home Economics 342 .....	..	..	4
Education 341 .....	..	..	4
Education 250, 130 .....	..	8	..
Education 140	4	..	..
Psychology 140 or 242 .....	..	4	..
Economics 340 .....	..	..	4
Electives	4	1	4
	16	16	16

Senior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Home Economics 334 (335) (336)	3	3	3
Home Economics 361	6	..	..
Home Economics 441 (442) (443)	4	4	4
Education 240 .....	..	6	6
Electives	3	3	3
	16	16	16

FOUR-YEAR COURSE IN VOCATIONAL AND AGRICULTURAL EDUCATION

During the first two years of this course students will take the regular general course in Agriculture.

The following is the outline of the Junior and Senior work in this course as agreed upon by the College of Agriculture and the College of Education:

Junior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
English 331 (332) (333)	3	3	3
Farm Crops (Agronomy 331, 332, 333)	3	3	3
Agricultural Economics 331, 332	3	3	..
Psychology of Teaching 242	4	..	..
Teaching Process (Education 130) .....	..	3	..
Observation and Curriculum (Education 131) .....	..	..	3
Animal Husb. 351	5	..	..
Bacteriology 352 .....	..	..	5
Agr. Engr. 432 .....	..	3	..
*Elective .....	..	2	2
	18	17	16

Senior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Agricultural Economics 431, 432	3	3	..
Education 243 .....	..	..	4
Vocational Agricultural Education 236 .....	..	3	..
Special Methods 332 .....	..	..	3
Practice Teaching	4	4	4
Horticulture 347	4	..	..

Economic Entomology	5		
*Electives	11	6	5
	<u>16</u>	<u>16</u>	<u>16</u>

DEPARTMENTAL STATEMENTS

SYMBOLS

The courses are numbered in accordance with the system described on page 41.

CREDIT HOURS

The number of credit hours allowed in each course is identical with the number of hours of lecture or recitation hours a week through the term; in laboratory, shop, or field work two or three hours is considered as equivalent to one hour of lecture or recitation.

EDUCATION

MRS. BATEMAN, MISS BUNKER, MISS CORAN, ASSOCIATE PROFESSOR ELLIOTT, ASSISTANT PROFESSOR GRAY, PROFESSOR GIVEN, PROFESSOR HILL, PROFESSOR JEWELL, PROFESSOR JORDAN, PROFESSOR MARINONI, PROFESSOR MATTHEW, PROFESSOR PALMER, PROFESSOR POWERS, MISS THOMPSON, MISS WILSON

Requirements for a Major in Education: forty-eight credit hours, including Psychology 140 and Education 140, 130, 131 and 240.

Psychology 140 should be taken as a preparation for all other courses. Students preparing to teach should complete, in addition, Psychology 142, 240, or 245, and Education 240 and 133. No student shall be recommended for a position in high school who has not completed Psychology 245, or Education 243. No student shall be recommended for a supervisory position who has not completed Education 133, or 231, or 232, and always 242. As a preparation for the ministry Psychology 230, 240, 245, and 243 are recommended; for the study of law, Psychology 140 and 240, and Philosophy 230 and 231; and for the study of medicine, Psychology 140 and 241.

PSYCHOLOGY.

Beside the courses in Psychology appearing below students are offered other courses in Psychology in the College of Arts and Sciences.

Psychology 140, below, will take the place of Psychology 241 wherever the latter course is required as a prerequisite.

140. GENERAL PSYCHOLOGY.—An introduction to the field of general psychology, dealing with the simpler aspects of mental life. Designed to ground the student in the fundamentals of the

*To be chosen from courses approved by the candidate's major professor, so as to insure a broad general knowledge of agriculture with an opportunity for a degree of specialization.

subject and to enable him to acquire a right attitude toward human behavior in general. Autumn, Winter and Spring.

PROFESSOR JORDAN.

144. **ADVANCED PSYCHOLOGY.**—Technical, scientific psychology, planned for those students who desire subsequently to take the course in the Psychology of the Abnormal, or for those students who are contemplating the study of medicine. Especially designed for those students who have had psychology in the high school. Juniors and Seniors should take this course rather than 140. Autumn.

PROFESSOR JORDAN.

142. **EDUCATIONAL PSYCHOLOGY.**—A consideration of the following topics of vital importance to the teacher; sources of interest, instincts, habits, moral training, memory, thinking, attention, imagination, and "transfer of training." Prerequisite 140 or 144. Autumn.

PROFESSOR JORDAN.

143. **EXPERIMENTAL PSYCHOLOGY.**—To acquaint the student with the experimental method and its technique, and to give him some first-hand information concerning the laws of psychology. Such problems in the learning process will be experimented upon which have a direct bearing on sensory, motor and perceptual learning, and on memory, imagination, reasoning, etc. Prerequisite: 140 or 144. Winter.

PROFESSOR JORDAN.

230. **GENETIC PSYCHOLOGY.**—An intensive study of the development of the mind from childhood to adolescence, with a consideration of the arguments for and against the recapitulation theory. A careful interpretation of both hereditary and environmental influences in their bearing upon education in the home and in the school. Prerequisite: 140 or 144. Spring.

PROFESSOR JEWELL.

234. **PSYCHOLOGY OF ELEMENTARY SCHOOL SUBJECTS.**—The psychological processes involved in the learning of reading, writing, arithmetic, history, and geography. The laws of habit formation applied in arranging the material. Prerequisite: 140 or 144. Spring.

PROFESSOR JORDAN.

242. **PSYCHOLOGY OF TEACHING.**—Especially for students in the various Smith-Hughes courses, dealing with the topics usually studied in General Psychology, but always with reference to the learning process. Very practical, and the applications of the laws of psychology to teaching will be stressed. Autumn.

PROFESSOR JEWELL.

243. **PSYCHOLOGY OF RELIGION.**—The growth of religious consciousness in the individual rather than in the race. A thorough consideration of the various phases of conversion; then the

same topics are studied again as elements of a spontaneous religious development. Prerequisite: 140 or 144. Spring.

PROFESSOR JEWELL.

245. **PSYCHOLOGY OF ADOLESCENCE**—The important physical, mental, and moral changes natural to adolescence, of special interest to all who have to deal with boys and girls of high school age. Attention given to laying the foundation for the pedagogy of secondary instruction. Prerequisite: 140 or 144. Winter.

PROFESSOR JEWELL.

335. **APPLIED PSYCHOLOGY**.—Consists of the applications of psychology to law, business, and vocational guidance. Emphasis laid on the use of standardized tests in the employment and selection of men. Prerequisite: 140 or 144. Spring.

PROFESSOR JORDAN.

EDUCATION

130. **THE TEACHING PROCESS**.—An introduction to the scientific principles underlying teaching. Education as a public necessity, the aim of education, the chief factors in the educative process, types of teaching, methods of study, duties and responsibilities of teachers. Text-book, lectures and recitations. Offered every term.

PROFESSOR HOTZ.

131. **OBSERVATION AND THE CURRICULUM**.—Closely related to 130. Individual differences, grading and promotion, the daily schedule, selection and organization of material, and methods of motivation. Observations and discussions of recitations in elementary and secondary school work, with considerable attention given to working out a suitable course of study. Text-book, lectures, references, and discussions. Prerequisite: 140 and 130. Offered every term.

PROFESSOR HOTZ.

133. **RURAL SCHOOL MANAGEMENT**.—To make both the aim and methods of conducting a rural school very definite; especially for those rural teachers who have had little opportunity to see better schools than their own. The enrichment of the life of the country child kept in mind; plays and games, study program, agriculture in the school, and special rural school problems considered. Text-book, lectures, and references. Offered each Summer Term.

PROFESSOR JEWELL.

134. **SCHOOL HYGIENE**.—Problems of school hygiene, including heating, lighting, ventilating, school diseases and medical inspection of schools, and hygiene of various school activities. Text-book, lectures, and references. Autumn.

PROFESSOR JEWELL.

140. **HISTORY OF EDUCATION**.—Educational tendencies rather than men. Stress laid upon the connection between educational

theory and actual school work in its historical development. Autumn and Winter.

PROFESSOR JEWELL.

124 (125) (126). PUBLIC SCHOOL MUSIC.—Preparatory to teaching music in the public schools. Two meetings each week are given to sight reading and one to a careful study of the methods of teaching the subject to children.

MRS. BATEMAN.

145. PRIMARY METHODS.—The guiding principles that determine in general what the primary program should include. Methods of teaching the various branches of the primary curriculum, and observation of classwork in the Training School through the fourth grade. Text-book, lectures and observation. Spring.

MISS WILSON.

Special Methods courses in Language, Numbers, Reading, and Grammar Grade Subjects are offered in each summer school.

220. THE TEACHING OF ENGLISH.—The aims, methods, and results of teaching English in high school. Written English emphasized. Prerequisites: Education 130, 131, 140, Psychology 140, and English 542-3. Spring.

MISS BUNKER.

221. THE TEACHING OF HISTORY.—The materials of history and the practical problems of teaching the subject in secondary schools. Prerequisites: Education 130, 131, 140, Psychology 140, and History 131-133. Spring.

MISS BUNKER.

222. THE TEACHING OF MATHEMATICS.—Algebra and Geometry; educational value; position in course; methods of teaching (both American and foreign); order and importance of topics; text-books and literature. Lectures, discussions and reports. Prerequisites: Education 130, 131, 140, Psychology 140, and Mathematics 155-157. Spring.

MISS BLAIR.

223. THE TEACHING OF FRENCH.—To discuss the problems that confront the teacher of French in secondary schools; pronunciation; choice and presentation of grammatical material; oral practice; composition; choice of tests; method of presentation. Prerequisites: Education 130, 131, 140, Psychology 140 or 144, and French 553. Spring.

PROFESSOR MARINONI.

224. TEACHERS' COURSE IN SECONDARY SCHOOL SCIENCE.—History, organization, methods, aims and results. Required of students preparing to teach natural science. Prerequisites: Education 130, 131, 140, and Psychology 140. Spring.

PROFESSOR POWERS.

230. PHILOSOPHY OF EDUCATION.—Education considered from the standpoint of: (1) biology, (2) neurology, (3) psychology, (4) anthropology, and (5) sociology. Instinct, heredity, habit,

culture-epochs, individual differences, imitation, suggestion, training and memory, imagination, emotions, will, senses, motor activities and moral nature, formal discipline, educational values and social education. Prerequisites: Psychology 140, or 144, and Education 140, or 130. **PROFESSOR JEWELL.**

240. **PRACTICE TEACHING.**—Daily teaching of one period in the Training School in practical application of the principles of instruction. Teachers' meeting one hour a week. (In Home Economics this course is called Education 260-261 and has Home Economics 341 as a prerequisite). Prerequisites: Psychology 140, or 144, and Education 140, 130, 131.

**PROFESSOR POWERS,
MISS BLAIR,
MISS BUNKER,
MISS COWAN,
ASSOCIATE PROFESSOR ENSIGN
ASSISTANT PROFESSOR GRAY,
PROFESSOR MARINONI,
PROFESSOR PALMER,
MISS THOMPSON,
MISS WILSON.**

241. **COMPARATIVE SCHOOL SYSTEMS**—The outstanding features of the school systems of France, Germany, England, Denmark, Switzerland, and the United States. Planned for those interested in the working out of the curriculum and a better supervision of the schools. The changes in education that the Great War has brought to England and Germany, and its probable effect on the United States, are largely emphasized. Text-book, lectures, and references. Prerequisite: 140. Spring.

PROFESSOR JEWELL.

242. **EDUCATIONAL TESTS AND MEASUREMENTS**—The critical study of scientific methods employed in measuring school room instruction. Special attention given the consideration of standard tests and scales for the measuring of educational attainments, together with the technique of applying these to educational products. Practice given in applying tests in oral and silent reading, spelling, penmanship, comprehension, arithmetic, English composition, and algebra. Prerequisites: Psychology 140, or 141, and Education 140, or 130. Winter.

PROFESSOR JORDAN.

243. **PRINCIPLES OF SECONDARY EDUCATION.**—The development and nature of the secondary school, and the fundamental aims of secondary education; the high school pupil; individual differences; the curriculum; methods of teaching; and the cardinal principles of organization and management, in so far as they affect the work of the teacher. For prospective high school teach-

ers. Text-book, references, reports and discussions. Prerequisites: 140, 130, 131. Autumn and Spring.

PROFESSOR HOTZ.

244. PUBLIC SCHOOL ADMINISTRATION.—The educational organization of state, city, and county; distribution of responsibility among boards of education, superintendents, principals and teachers; selection, tenure and promotion of teachers; attendance; school costs and accounting; records and reports; a comparison of representative school systems. For prospective principals and superintendents. Prerequisite: 130, 131; or in the case of teachers of wide experience, the permission of the instructor. Textbook, lecture, discussions, and reports. Winter.

PROFESSOR HOTZ.

246. HIGH SCHOOL ADMINISTRATION.—Legal status of the secondary school; its relation to elementary and higher education; inspection and accrediting standards; junior high schools; classification, grading, and promotion of pupils; measuring results, marks, and marking systems; costs; records; principal as an administrator, supervisor and social leader. For prospective high school teachers and principals. Prerequisite: 130, 131; or in the case of teachers of wide experience, the permission of the instructor. Text-book, references, lectures, and discussions. Winter.

PROFESSOR HOTZ.

330. AGRICULTURAL EDUCATION.—The rise of agriculture from prehistoric times to the present, special consideration given the educational factors that have brought about its evolution; the development of our secondary schools and the place that agriculture should occupy in the curriculum; the Smith-Hughes law, its provisions and administration. Spring.

ASSOCIATE PROFESSOR ENSIGN.

331. FARM-SHOP WORK.—Problems of construction and repair such as the farmer has to meet continually in farming operations. Mechanical drawings, design, wood work, metal work, rope work, belt lacing, tool sharpening, machine and harness repair. Autumn.

ASSOCIATE PROFESSOR ENSIGN.

332. SPECIAL METHODS IN VOCATIONAL AGRICULTURE.—Organization and presentation of subject matter according to seasonal sequence in class, laboratory, field or demonstration exercises, texts, references, and illustrative materials, together with indexing of the same for ready reference; equipment and arrangement of class rooms and shop. A critical study of the project, the most important feature. Scope, kind, supervision, records and duration of the project. Several required trips to near-by Smith-Hughes schools. Winter.

ASSOCIATE PROFESSOR ENSIGN.

341. HOME ECONOMICS METHODS.—Methods for teaching foods and clothing. Discussion of the development of the home economics movement, courses of study, current text-books, the method of demonstration. Prerequisites: Home Economics 331-333, and 234-236; Education 243, 130, and 140.

PROFESSOR PALMER.

411. SEMINAR IN AGRICULTURAL EDUCATION.—A review of current literature bearing on Vocational Education; round table discussions on special topics relating to the work in Arkansas and other states. For Seniors and Graduate Students majoring in Vocational work.

ASSOCIATE PROFESSOR ENSIGN.

430. ADVANCED TEACHING.—A research course in problems pertaining to class room work. Open only to Senior and Graduate Students, and may be taken for 1, 2, or 3 hours of credit. Prerequisite: 240.

PROFESSOR PALMER.

COLLEGE OF ENGINEERING

The purpose of the courses in this college is to prepare young men for the profession of engineering. The value of the training acquired in a university course is recognized by railway officials, manufacturers, municipal, state, and federal authorities. The demand in industrial and engineering fields throughout the country is for college graduates.

The graduates of the College of Engineering of the University of Arkansas are scattered over the entire world, occupying positions of trust in foreign lands, in the service of the United States government, in large manufactories, and in state and municipal service, or are building for themselves reputations as professional engineers.

ADMISSION

For a detailed statement of the entrance requirements and a description of the subjects accepted for entrance, see page 20.

COURSES OF STUDY

The College of Engineering offers through its various departments four year courses leading to the degrees of *Bachelor of Chemical Engineering*, (B. Ch. E.), *Bachelor of Civil Engineering*, (B. C. E.), *Bachelor of Civil Engineering in Highways*, (B. C. E. in Highways), *Bachelor of Electrical Engineering*, (B. E. E.), *Bachelor of Mechanical Engineering*, (B. M. E.), and *Bachelor of Mining Engineering*, (B. Mt. E.); graduate and professional courses leading to the degrees of *Chemical Engineer*,

(Ch. E.), *Civil Engineer*, (C. E.), *Electrical Engineer*, (E. E.), and *Mechanical Engineer*, (M. E.); and special two-year courses leading to a certificate.

Candidates for the bachelor's degree in engineering must meet the entrance, residence, and registration requirements, and must complete satisfactorily two hundred and sixteen term hours as outlined in the following courses of study.

Elective courses will not be given unless as many as five students, who have completed the required undergraduate course, register for them.

FRESHMAN AND SOPHOMORE YEARS FOR ALL ENGINEERING STUDENTS

Freshman Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Physics 147 (148) (149)	4	4	4
English 141 (142) (143)	4	4	4
Mathematics 157	5	..	..
Mathematics 156 .....	..	5	..
Mathematics 128 .....	..	..	2
Mathematics 139 .....	..	..	3
Drawing 121 (122) (123)	2	2	2
Mechanic Arts 121 (122) (123)	2	2	2
Military Art 111 (112) (113)	1	1	1
	18	18	18

Sophomore Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Mathematics 256	5	..	..
Mathematics 251 (252) .....	..	5	5
Chemistry 257 (258) (259)	5	5	5
Drawing 221 (222) (223)	2	2	2
Civil Engineering 251	5	..	or 5
Experimental Engineering 225	2	or 2	..
Electrical Engineering 231, 221 .....	..	5	or 5
Military Art 221 (222) (223)	1	1	1
Heat Power Engineering 321	3	or 3	..
	18	18	18

REQUIREMENTS FOR THE DEGREE OF CHEMICAL ENGINEERING

Junior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Chemistry 354 (355) (359)	5	5	5
Chemistry 254, 255	5	5	..
Heat Power Engineering 341 (342) (343)	4	4	4
*Elective	4	4	9
	18	18	18

Senior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Chemistry 434, 435 (436)	3	3	3
Chemistry (451) (452), 453	5	5	5
*Elective	10	10	10
	18	18	18

CIVIL ENGINEERING
Junior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
H. P. Engineering 341 (342) (343)	4	4	4
Civil Engineering 342 .....	..	4	..
Civil Engineering 340, 312 .....	..	1	4
Civil Engineering 351	5	..	..
Civil Engineering 343 .....	..	..	4
Civil Engineering 331 (332) (333)	3	3	3
Geology 330	3	..	..
Civil Engineering 335 .....	..	3	..
Elective	3	3	3
	18	18	18

Senior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Civil Engineering 451, 431	5	3	..
Civil Engineering 443 .....	..	..	4
Civil Engineering 435 .....	..	3	..
Civil Engineering 436, 437, 428	3	3	2
Civil Engineering 432 .....	..	3	..
Civil Engineering 433	3	..	..
Civil Engineering 440	4	..	..
Civil Engineering 438 .....	..	..	3
Civil Engineering 434 .....	..	..	3
Civil Engineering 439 .....	..	..	3
Civil Engineering 430 .....	..	3	..
Elective	3	3	3
	18	18	18

*HIGHWAY ENGINEERING**Junior Year*

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
H. P. Engineering (341) (342) (343)	4	4	4
Civil Engineering 312, 340 .....	..	1	4
Civil Engineering 351	5	..	..
Civil Engineering 342 .....	..	4	..

*All electives must be chosen with the consent of the head of the Department of Chemistry and the Dean of the College of Engineering. Of these electives, 12 hours must be chosen from other courses in chemistry and at least 9 hours in English or a foreign language.

Civil Engineering (331) (332) (333)	3	3	3
Geology 330	3	--	--
C. E. & H. E. 335	--	3	--
Civil Engineering 343	--	--	4
Elective	3	3	3
	<hr/> 18	<hr/> 18	<hr/> 18

Senior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Civil Engineering 451, 431	5	3	--
Highway Engineering 425	--	2	--
Civil Engineering 436, 437, 428	3	3	2
Highway Engineering 432	--	--	3
Civil Engineering 432	--	3	--
Civil Engineering 440	4	--	--
Chemistry (441) (442) (443)	4	4	4
Highway Engineering 438	--	--	3
Civil Engineering 434	--	--	3
Highway Engineering 422	2	--	--
Highway Engineering 435	--	3	--
Civil Engineering 439	--	--	3
	<hr/> 18	<hr/> 18	<hr/> 18

REQUIREMENTS FOR THE DEGREE OF BACHILLOR OF ELECTRICAL ENGINEERING

Junior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Heat Power Engineering 341 (342) (343)	4	4	4
Electrical Engineering 331 (332) (333)	3	3	3
Electrical Engineering 321 (322) (323)	2	2	2
Electrical Engineering 324 (325) (326)	2	2	2
Heat Power Engineering 331 (332) (333)	3	3	3
•Elective	4	4	4
	<hr/> 18	<hr/> 18	<hr/> 18

Suggested Electives:

Experimental Engineering 321 (322) (323)	2	2	2
English 331 (332) (333)	3	3	3
Military Art 521 (522) (523)	2	2	2
Physics 531 (532)	3	3	1
Chemistry 231 (232)	3	3	--
French 141 (142) (143)	4	4	4
Spanish (141) (142) (143)	4	4	4
Experimental Engineering 322	--	2	--
Electrical Engineering 334	--	--	3

Senior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Electrical Engineering 431 (432) (433)	3	3	3
Electrical Engineering 421 (422) (423)	2	2	2
Electrical Engineering 424 (425) (426)	2	2	2
Heat Power Engineering 451	5	--	--
Electrical Engineering 417 (418) (419)	1	1	1

Electrical Engineering 451	5	..	3
Civil Engineering 434 .....	..	..	3
Economics 433 .....	..	..	3
*Electives	5	5	4
	18	18	18

Suggested Electives:

Electrical Engineering 441 (442) (443)	4	4	4
Electrical Engineering 434, 435	3	..	3
Military Art 531 (532) (533)	3	3	3
Advanced Electrical Engineering Laboratory 521 (522) (523)	2	2	2

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF MECHANICAL ENGINEERING

Junior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Heat Power Engineering 341 (342) (343)	4	4	4
Electrical Engineering 331 (332)	3	3	..
Electrical Engineering 321 (322)	2	2	..
Experimental Engineering 321 (322) (323)	2	2	2
Civil Engineering 343 .....	..	..	4
Drawing 341	4	..	..
Heat Power Engineering 344 (345) .....	..	..	4
Heat Power Engineering 331 (332) (333)	3	3	3
*Elective .....	..	..	1
	18	18	18

Senior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Electrical Engineering 451 .....	..	5	..
Heat Power Engineering 451	5	..	..
Economics 433 .....	..	..	3
Heat Power Engineering 441	4	..	..
Heat Power Engineering 442 .....	..	4	..
Experimental Engineering 423 .....	..	..	2
Heat Power Engineering 431 .....	..	..	3
Heat Power Engineering 443 (444) .....	..	4	4
Civil Engineering 434 .....	..	..	3
Advanced Shop 435	3	..	..
Thesis .....	..	..	3
*Elective	6	5	..
	18	18	18

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF MINING ENGINEERING

Junior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Civil Engineering 251 (256)	5	5	..
Electrical Engineering 231, 221 .....	..	..	5
Geology 231, 232 (233)	3	3	3

*To be chosen with the advice and consent of the head of the department.

Geology 531 (532)	3	3	..
Chemistry 251 (254) (255)	5	5	5
Mining 321 (322) (323)	2	2	2
*Elective .....	..	..	3
	18	18	18

Senior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Geology 334	3	..	..
Geology 337, 338 .....	..	3	3
Mining 431	3	..	..
Heat Power I (including 331 (342) (343))	4	4	4
Mining 434 .....	..	3	..
Metallurgy 436	3	..	..
Metallurgy 428 .....	..	..	2
Chemistry 533 .....	..	..	3
*Elective	6	9	7
	19	19	19

REQUIREMENTS FOR THE GRADUATE AND PROFESSIONAL DEGREES IN ENGINEERING

The graduate degrees of *Chemical Engineer*, *Civil Engineer*, *Electrical Engineer*, and *Mechanical Engineer* are granted to students who have completed the required undergraduate course and, in addition, at least one year of graduate work in residence. This graduate work must include one major subject, based on the undergraduate course pursued, and two minor subjects, one or both of which must be closely related to the major subject. The candidate must complete not less than forty five term credit hours in approved courses and must submit an acceptable thesis in his major subject presenting the results of original research.

The professional degrees of *Chemical Engineer*, *Civil Engineer*, *Electrical Engineer*, and *Mechanical Engineer* are also conferred upon graduates of the University of Arkansas who have been in successful practice of their profession for at least three years, two of which must have been done after receiving the bachelor's degree. The candidate must have been in responsible charge of work as principal or assistant for at least one year. In addition to this he must present an acceptable thesis giving the results of original research.

The candidate must submit, in writing, to the Committee on Scholarship of the College of Engineering a statement of his professional record, the names of at least three references, and the subject of his thesis, not later than January 1 of the college year in which the degree is sought. The completed thesis must be in the hands of the Committee on Scholarship not later than May 20, of the same year. A fee of \$200 is required, to cover cost of binding the library copy.

*To be chosen with the advice and consent of the candidate's major professor.

All senior engineering students, accompanied by instructors, are required, during the spring term, to make a visit of inspection to power plants, manufacturing plants, and noted engineering works. All engineering students will be required to spend one week in actual field practice in surveying during the junior year.

DEPARTMENTAL STATEMENTS

CHEMICAL ENGINEERING

PROFESSOR HAILE, MR. TRIMBLE, MR. HUMPHREYS

The requirements for a degree are outlined on p. 100.

The courses in chemistry for chemical engineers are described under the Department of Chemistry, pp. 52-55.

CIVIL ENGINEERING

PROFESSOR STOCKER, ASSISTANT PROFESSOR SPENCER, MR. MULLIN

The requirements for a degree are outlined on pages 100-1.

The courses in civil engineering include theoretical instruction accompanied by illustrations and as much of engineering practice as possible. Much time is devoted to practice in the field, drafting room and laboratory, this work being carried on parallel with the class work. Each year a party of engineering students goes into camp for one week for practice in surveying and railway location. The courses will give the student a knowledge of fundamental principles that will enable him to enter intelligently upon professional practice.

A laboratory fee of \$2.00 is charged for the following courses in Civil Engineering: 251, 312, 340, 351, 435, 439, 440.

HIGHWAY ENGINEERING

In recent years many problems have arisen in connection with the construction and maintenance of highways, thus creating a demand for men who have been trained for this particular branch of engineering. The course in highway engineering has been arranged to aid in training engineers for this work.

In the last year subjects especially related to highway engineering have been introduced, and other subjects, considered of less importance in highway work, have been dropped from the regular course in civil engineering.

A well equipped laboratory has been provided for making all the standard tests in accordance with the practice of the United States Office of Public Roads.

213. LEVELING AND FARM DRAINAGE.—Leveling, land surveying, and farm drainage. For students in agriculture. Lectures and recitations one hour the first part, and field practice three hours the last part of the term. Spring.

PROFESSOR STOCKER.

251. ELEMENTARY SURVEYING.—General surveying to meet the needs of all engineering students; the care and use of tape, level

and transit; exercises in the field, including land surveying, leveling, public land surveys, and the adjustment of instruments. Lectures and recitations three hours, field practice six hours. Prerequisite: Mathematics 156. Autumn and Spring

PROFESSOR STOCKER,
MR. MULLIN.

312, 340. RAILROAD SURVEYING.—Problems and practice in the location of simple, vertical and transition curves; turnouts; measurements of cuts and fills; setting slope stakes and making computations for volumes. Prerequisites: 251, 351. Winter and Spring.

ASSISTANT PROFESSOR SPENCER.

342. RAILROAD SURVEYING.—Preliminary surveys and location; simple, vertical and transition curves; turnouts and cross-overs; estimates of earthwork and materials of construction. Five hours of credit. Prerequisites: 251, 351. Winter.

ASSISTANT PROFESSOR SPENCER.

RAILROAD SURVEYING.—Actual field practice in reconnaissance, preliminary, location and topographical surveys. One week, nine hours a day. Required of Juniors.

ASSISTANT PROFESSOR SPENCER.

430. RAILWAY ECONOMICS.—The economics of railway location and maintenance. Prerequisites: 342, 313. Winter.

ASSISTANT PROFESSOR SPENCER.

331. DRAWING.—Computations and drawing of topographical maps from actual surveys. Drawing practice nine hours. Prerequisite: Drawing 221-223. Autumn.

ASSISTANT PROFESSOR SPENCER.

332 (333). DRAWING.—Graphic statics and detail drawing of simple wood and steel roof trusses. Drawing practice nine hours. Prerequisite: Drawing 221,223. Winter and Spring.

ASSISTANT PROFESSOR SPENCER.

343. HYDRAULICS.—The theory of hydraulics; principles of hydrostatic and hydrodynamic pressures; steam gauging; water measuring devices. Lectures and recitations three hours, laboratory or computation work three hours. Prerequisite: H. P. 341-343. Spring.

MR. MULLIN.

335. HIGHWAYS.—The location, design, construction and maintenance of earth, gravel, broken stone, concrete and bituminous macadam roads. Winter.

PROFESSOR STOCKER.

351. SURVEYING.—The use, care and adjustment of level, transit, plane table and sextant; methods employed in topographic, land, city, mine and hydrographic surveying; map making and

calculations from field notes. Lectures and recitations three hours, field practice six hours. Prerequisite: 251. Autumn.

PROFESSOR STOCKER.

436 (437). MASONRY AND REINFORCED CONCRETE.—Stone and brick masonry; plain and reinforced concrete; deep foundations; dams; retaining walls; reinforced concrete structures. Prerequisites: H. P. 341-343. Autumn and Winter.

ASSISTANT PROFESSOR SPENCER.

428. CONCRETE DESIGN.—Design of reinforced concrete structures. Drawing practice six hours. Prerequisites: 440, 436, 437, H. P. 341-343. Spring.

ASSISTANT PROFESSOR SPENCER.

H. E. 435. HIGHWAY ENGINEERING. LABORATORY—Tests on gravel and broken stone to determine hardness, toughness, cementing power, and resistance to abrasion; rattler tests and absorption tests on paving brick; tests on sand and clay; inspection of and tests on bituminous materials. Laboratory six hours. Prerequisite: C. E. 335. Winter.

ASSISTANT PROFESSOR SPENCER.

440. ENGINEERING LABORATORY.—Tests to determine strength and other properties of materials of construction; tensile and crushing tests on brick and stone; standard tests on natural and Portland cements; tests to determine the effect of graded and ungraded aggregates on concrete. One hour of recitation and six hours of laboratory. Prerequisite: H. P. 341-343. Autumn.

ASSISTANT PROFESSOR SPENCER.

439. ADVANCED SURVEYING.—Problems in triangulation, topographic surveying, precise leveling and practical astronomy. Prerequisites: 342, 313, 312, 330. Spring.

ASSISTANT PROFESSOR SPENCER.

H. E. 422. HIGHWAYS—Proper design, construction and maintenance of city streets and pavements. Some time devoted to road laws, taxes, bond issues and assessments. Prerequisites: C. E. 335, 351. Autumn.

PROFESSOR STOCKER.

451, 431. ROOF AND BRIDGE STRESSES.—Computation of stresses in roofs and bridges, chiefly by analytical methods. Special attention given to the subject of train loads for railroad bridges. Prerequisite: H. P. 341-343. Autumn and Winter.

PROFESSOR STOCKER.

435. BRIDGE DESIGN.—Complete design with detailed drawings and estimates of weight and cost of a plate girder bridge. Prerequisites: 451, H. P. 341-343. Winter.

PROFESSOR STOCKER.

443. BRIDGE DESIGN.—Complete design with detailed drawings

and estimates of weight and cost of a riveted or pin connected railroad bridge. Prerequisites: 451-431, H. E. 341-343. Spring.

PROFESSOR STOCKER.

432. SEWERAGE.—Municipal sewage disposal. Computations of quantities of sanitary and storm sewage, design of separate and combined systems of sewers, design of sewage purification works, and the ultimate disposal of sludge and effluents. Financial, legal and pathological considerations of sanitation. Prerequisite: 343. Winter.

MR. MULLIN.

433. WATERWORKS.—Public water supplies. Examination of sources of supply, computations of quantities required, design of reservoirs and purification plants, and design of distributing systems. Financial, legal and pathological considerations of municipal water supply. Prerequisite: 343. Autumn.

MR. MULLIN.

H. E. 425. HIGHWAY BRIDGE DESIGN.—Problems in the design of highway bridges, determination of waterways, construction and maintenance of highway bridges and culverts. Drawing and computation six hours. Winter.

PROFESSOR STOCKER.

H. E. 432. HIGHWAY BRIDGE DESIGN.—A continuation of H. E. 425.

PROFESSOR STOCKER.

434. ENGINEERING CONTRACTS AND SPECIFICATIONS.—Legal aspects of contract and specification forms and instruments for advertisements, proposals, contracts and bonds; specifications for various kinds of work and materials. Spring.

PROFESSOR STOCKER.

438. THESIS.—Each senior or graduate student, candidate for a degree, is required to submit the subject of his thesis not later than December 15th, and the completed thesis not later than May 10th, to a committee consisting of the candidate's major professor and two other members appointed by the president, for its criticism and approval. All theses must be neatly written on one side of plain white paper, eight by ten inches in size, leaving one inch margin. When drawings or diagrams are used they shall be made to conform to these dimensions or some multiple of them. The first page of the thesis should contain the title, the following statement: "Thesis submitted by _____ to the faculty of the University of Arkansas in partial fulfillment of the requirements for the degree of _____" and the date. Theses submitted for bachelors degrees must be at least 2,500 words in length.

PROFESSOR STOCKER.

520. LAND DRAINAGE AND IRRIGATION.—Land drainage. Rain-fall and run-off, the survey of drainage basins, the computation

of quantities of run-off from drainage basins; the design, location and construction of drainage courses; the financial and legal considerations of land drainage; benefits derived from land drainage.

Irrigation.—The sources of water supply for irrigation; the design, location and construction of irrigation works; the application and duty of the water; the financial, legal and beneficial considerations of irrigation. Spring of Senior year.

MR. MULLIN.

ELECTRICAL ENGINEERING

PROFESSOR GLADSON, PROFESSOR STELZNER, MR. TEAGUE, MR. McKINLEY, MR. KING

The requirements for a degree are outlined on page 102. The courses in this department seek to combine general and technical subjects in such proportions as to furnish a good foundation for the profession of electrical engineering. Sufficient theory is taught in the class-room and illustrated by laboratory experiments to give the student a knowledge of the underlying principles. Shop experience with manufacturing companies to give the student specific practical training is desirable. Such training should be obtained during vacations and after graduation.

A laboratory fee of \$2.00 is charged for the following courses in Electrical Engineering: 221, 321, 322, 323, 421, 422, 423. (See 417.)

231. ELEMENTS OF ELECTRICAL ENGINEERING.—Introductory. Recitations and demonstrations on electric and magnetic circuits and machines. Measuring instruments, their use and calibration. Prerequisite: Physics 142. Spring.

PROFESSOR STELZNER.

221. ELECTRICAL ENGINEERING LABORATORY.—To accompany 231. Laboratory four hours. Spring.

MR. TEAGUE, MR. KING.

331 (332) (333). DYNAMO ELECTRIC MACHINERY.—Direct and alternating current machinery with their general applications. Prerequisite: 231.

PROFESSOR STELZNER.

321 (322) (323). ELECTRICAL ENGINEERING LABORATORY.—Electrical and magnetic measurements, use and calibration of instruments; testing of direct and alternating current machinery. Four hours a week. To accompany 331-333.

PROFESSOR STELZNER.
MR. KING.

324 (325) (326). ELECTRICAL ENGINEERING DESIGN.—Problems in direct current machinery, calculations and drawing. Four hours. Prerequisite: 231.

MR. TEAGUE.

334. ILLUMINATING ENGINEERING.—Electric light wiring and

different methods of artificial illumination; sources, intensity and distribution of light; physiological and hygienic problems; direct and indirect lighting; reflecting surfaces; illumination and photometric calculations. Prerequisite: 231. Spring.

PROFESSOR STELZNER.

431 (432) (433). ALTERNATING CURRENTS AND ALTERNATING CURRENT MACHINERY.—Lectures, recitations and problems on alternating current circuits and machinery. Prerequisite: 333.

PROFESSOR STELZNER.

421 (422) 423). ELECTRICAL ENGINEERING LABORATORY.—Laboratory exercises to accompany 431-433. Four hours.

PROFESSOR STELZNER.

424 (425) (426). ELECTRICAL ENGINEERING DESIGN.—Problems in alternating current machinery, calculations and drawing four hours. To accompany 431-433.

PROFESSOR STELZNER,
MR. TEAGUE,
MR. MCKINLEY.

441. HYDRO-ELECTRICAL ENGINEERING.—Methods of investigating power possibilities of flowing water, collecting data, selecting power sites, designing dams, power house, transmission lines, and machinery. Autumn.

PROFESSOR GLADSON.

434. TELEPHONY.—The principal systems of telephony in practical use. Prerequisite: 231. Autumn.

MR. TEAGUE.

451. ELECTRICAL EQUIPMENT OF POWER PLANTS.—Selection of electrical machinery for power stations; station construction, operation, and management. Winter.

PROFESSOR GLADSON.

435. TELEGRAPHY.—The principal system of wire and wireless telegraphy in practical use. Prerequisite: 231. Spring.

MR. TEAGUE.

442. ELECTRICAL RAILWAYS.—Application of electricity to the propulsion of street cars and railway trains. Selection, equipment, and study of the various systems of electric traction. Lectures, recitations, and problems. Prerequisite: 333. Winter.

PROFESSOR STELZNER.

437. ELECTRICAL ENGINEERING SEMINAR.—Students who attend and take part in at least three-fourths of the meetings of the University of Arkansas Branch of the American Institute of Electrical Engineers during their Junior and Senior years, and who prepare and present an acceptable original paper on some engineering subject, will be allowed three terms hours of credit.

417 (418) (419). THESIS.—Each senior, or graduate student, candidate for a degree, is required to submit the subject of his

thesis not later than December 15, and the completed thesis not later than May 10, to a committee, consisting of the candidate's major professor and two other faculty members appointed by the dean, for its criticism and approval. All theses must be neatly typewritten on one side of plain white paper, eight by ten inches in size, leaving a one-inch margin. When drawings or diagrams are used, they should be made to conform to these dimensions or some multiple of them. The first page of the thesis should contain the title and the following statement: "Thesis submitted by _____ to the faculty of the University of Arkansas in partial fulfillment of the requirements for the degree of _____," and the date. Theses submitted for a bachelor's degree must be at least 2,500 words in length. Three term hours of credit. Fee, \$2.00, to cover cost of binding the library copy.

PROFESSOR GLADSON.

443. **ELECTRIC TRANSMISSION AND DISTRIBUTION OF POWER**—Modern methods of transmission and distribution of electric power. Spring.

PROFESSOR GLADSON.

MECHANICAL ENGINEERING

There are two departments in Mechanical Engineering: Experimental Engineering and Drawing; and Heat Power Engineering and Mechanical Arts.

The requirements for a degree are outlined on page 103.

Mechanical Engineers are in demand in various lines of engineering work, such as consulting engineering; power plant designing, constructing, and operating; designing, constructing, erecting, operating, and testing all kinds of machinery; manufacturing; engineering salesmanship; heating and ventilating engineering; and efficiency engineering.

The course in mechanical engineering is designed to give the student a broad foundation in the subjects that are of the greatest importance in his work, a technical education in his chosen field made practical by shop and laboratory courses, and, in electives, a certain amount of specialization and cultural development. It is believed that such a course will enable the student to be of immediate value to his employer and that it will insure certain advancement in his profession.

A laboratory fee of \$2.00 will be charged in the following courses: in Experimental Engineering, 225, 321, 322, 323, 422, 423; in Trade Courses, 41, 42, 43; in Mechanic Arts, 121, 122, 123, 111, 112, 113, 124, 125, 126, 435.

EXPERIMENTAL ENGINEERING AND DRAWING

PROFESSOR WILSON, MR. MULLIN

225. **MECHANICAL LABORATORY**.—Elementary laboratory work to acquaint the student with the use and operation of power plant

equipment. One lecture and three hours laboratory. Prerequisite: Physics 146. Winter or Spring.

PROFESSOR WILSON.

321 (322) (323). MECHANICAL LABORATORY.—The calibration of engineering instruments, such as indicators, planimeters, nozzles and meters; valve setting, efficiency tests of steam engines and boilers. Laboratory four hours. Must be preceded or accompanied by Heat Power Engineering 331-333. Prerequisite: Exp. Eng. 225.

PROFESSOR WILSON.

423. MECHANICAL LABORATORY.—Properties of engineering materials investigated experimentally. Complete test of some power or pumping plant. Special investigations. Four hours of laboratory. Prerequisites: Heat Power 342, Exp. Eng. 225.

PROFESSOR WILSON.

449. THESIS.—Each senior or graduate student, candidate for a degree, is required to submit the subject of his thesis not later than December 15, and the completed thesis not later than May 10, to a committee, consisting of the candidate's major professor and two other members appointed by the president, for its criticism and approval. All theses must be neatly typewritten on one side of plain white paper, eight by ten inches in size, leaving a one-inch margin. When drawing or diagrams are used they should be made to conform to these dimensions or some multiple of them. The first page of the thesis should contain the title, the following statement: "Thesis submitted by -----
----- to the faculty of the University of Arkansas in partial fulfillment of the requirements for the degree of -----
-----" and the date. Theses submitted for bachelor's degrees must be at least 2,500 words in length. Prerequisite: Senior standing.

PROFESSOR WILSON.

DRAWING

111 (112) (113). AGRICULTURAL DRAWING.—Elementary principles of mechanical drawing, exercises in free hand lettering, and drawing of farm structures. Drawing practice three hours. Prerequisite: None.

MR. MULLIN.

121 (122) (123). MECHANICAL DRAWING.—Instruction in the selection, use and care of instruments, lettering, sketching, and working drawings. The latter half of this course is devoted to elementary Descriptive Geometry. The problems are assigned and worked out in the drawing room. Six hours of drawing. Prerequisite: None.

MR. MULLIN.

221 (222) (223). MECHANICAL DRAWING.—Elementary course, including lettering, technical sketching of machine parts, detail

and assembly drawing, tracing and blue-printing, perspective and isometric drawing, topographical drawing and empirical machine design. Drawing practice six hours. Prerequisite: Drawing 123.

PROFESSOR WILSON.

224 (225) (226). ARCHITECTURAL DRAWING.—Plans and specifications, details, bills of material, perspective drawing, orders of architecture. Drawing practice six hours.

PROFESSOR WILSON.

227 (228). LETTERING.—Freehand lettering, titles for maps and drawings, graphs. Drawing practice six hours. Winter and Spring.

MR. MULLIN.

341. KINEMATICS—Investigation of the means by which motion is transmitted in machines and of the principles underlying the design of gears, cams, and similar mechanical devices. Two recitations and six hours of drawing. Prerequisite: Drawing 223. Autumn.

PROFESSOR WILSON.

HEAT POWER ENGINEERING AND MECHANIC ARS

PROFESSOR BAENDER, MR. JONES, MR. DINWIDDIE, MR. THOMPSON
HEAT POWER ENGINEERING

341 (342) (343). THEORETICAL MECHANICS.—Statistics and dynamics, including a mathematical discussion of inertia, energy, and similar topics. The materials of construction, including the mathematical development of the formulae for calculating the strength of beams, columns, and shafting, with numerous practical problems illustrating the theory involved. Prerequisite: Mathematics 251-252.

PROFESSOR BAENDER.

344 (345). MACHINE DESIGN.—The kinematics of machinery, gear wheels, and link motion. Designs made of complete lathes, punches, and similar machines. Complete working drawings, including the application of theory to practical problems. Must be preceded or accompanied by course 341 (342) (343). Lectures and recitations two hours, drawing six hours. Prerequisite: 341-343 Shop. Winter and Spring.

PROFESSOR BAENDER.

331 (332) (333). HEAT POWER ENGINEERING.—The thermodynamic theory underlying heat engines and its application to the steam and gas engines; valves and valve gears analyzed by the valve diagrams. Boilers, superheaters, and the properties of saturated and superheated steam. Prerequisites: Physics 241-243, Mathematics, 251-252.

PROFESSOR BAENDER.

451. MECHANICAL EQUIPMENT OF POWER PLANTS.—The selec-

tion of machinery for power plants, coal handling, and ash-handling. The characteristics of operation of the various types of prime movers and auxiliaries under variable loads so that equipment best adapted for the problems at hand may be selected. Must be preceded by course 331-333. Autumn

PROFESSOR BAENDER.

452. ENGINE AND BOILER DESIGN.—The mechanics of engines and boilers with problems illustrating the thermo-dynamic theory underlying the design. Must be preceded by course 331-333. Elective.

PROFESSOR BAENDER.

417 (418) (419). THESIS.—Each senior or graduate student, candidate for a degree, is required to submit the subject of his thesis not later than December 15, and the completed thesis not later than May 10, to a committee, consisting of the candidate's major professor and two other members appointed by the president, for its criticism and approval. All these must be neatly typewritten on one side of plain white paper, eight by ten inches in size, leaving a one-inch margin. When drawings or diagrams are used they should be made to conform to these dimensions or some multiple of them. The first page of the thesis should contain the title and the following statement: "Thesis submitted by ----- to the faculty of the University of Arkansas in partial fulfillment of the requirements for the degree of -----," and the date. Theses submitted for bachelor degrees must be at least 2,500 words in length.

PROFESSOR BAENDER.

231. ENGINES AND BOILERS.—For second year students. To give general information about power plant equipment. No heat theory introduced. Prerequisite: None. Autumn or Winter.

PROFESSOR -----

442. GAS ENGINE DESIGN.—The design of modern gas engines especially as applied to the automobile engine. Various types of engines. Prerequisite: 331-333. Winter.

PROFESSOR BAENDER.

431. REFRIGERATION.—The theory of ice-making machinery. The various types, with particular reference to the theory underlying their construction. Prerequisite: 331-333. Spring.

PROFESSOR -----

441. INDUSTRIAL ENGINEERING.—To give a knowledge of modern shop methods. It includes time study, cost systems, piece work, etc. Prerequisite: Shop. Autumn.

PROFESSOR -----

443 (444). HEATING AND VENTILATING.—The various types of heating systems and their proper installation. Prerequisite: 331-333. Spring.

PROFESSOR -----

MECHANIC ARTS

121 (122) (123). GENERAL SHOP PRACTICE.—Joinery, use and care of tools, making of patterns and core boxes; forge practice in management of fires, drawing, welding, annealing and tempering of tools; machinery, bench work in chipping and filing, turning, thread-cutting, planing, drilling, grinding, and general repair. Shop practice six hours. Prerequisite: None.

MR. DINWIDDIE,
MR. JONES,
MR. THOMPSON.

111 (112) (113). CARPENTRY AND FORGE PRACTICE.—Especially for students in agriculture. Use and care of woodworking tools, grinding and sharpening edge tools, setting and filing saws. Sawing, quarter sawing and seasoning lumber, board measure and stock dimensions; commercial methods of handling lumber; construction of modern farm buildings; preparing lists of material, plan roof framing, and use of steel square. Forge work, upsetting, drawing out, bending, twisting, welding and tempering. Shop practice three hours. Prerequisite: None.

MR. DINWIDDIE,
MR. THOMPSON.

124 (125) (126). MANUAL TRAINING.—Joinery, cabinet-making, wood-turning. Care, use, and proper methods of sharpening tools. Especially for prospective teachers of manual training. Shop practice twelve hours.

MR. DINWIDDIE.

435. ADVANCED SHOP PRACTICE.—Advanced work in machine shop forging and patternmaking, including lathe, planer, and milling machine. The making of tools and complicated patterns. The introduction of modern shop methods and time study. Shop practice six hours. Prerequisite: 121-123. Autumn.

MR. JONES,
MR. DINWIDDIE,
MR. THOMPSON.

MINING ENGINEERING

PROFESSOR —————.

The requirements for a degree are outlined on page 103. The course is planned so as to give the major instruction in geology, mining engineering, and chemistry, with minor work in civil, mechanical, and electrical engineering.

The practical work of mining, metallurgy, and ore dressing can be learned so much more readily at practical work than but little laboratory work in these lines is offered. Students are expected, however, to spend parts of at least two summer vacations at ordinary day work in some mine, mill, or smelter where

they will be expected to ask questions of the workmen, keep notes of their observations, and compute the costs of some detailed operations.

While this course is not unduly exacting, it is severe and should be undertaken only by students well prepared mentally and physically.

MINING ENGINEERING

321 (322) (323). DETAILS OF MINING OPERATIONS.—Excavating, drilling, blasting, driving shafts, adits, and drifts, stoping, timbering, hoisting, draining and transporting. Lectures and recitations two hours a week.

PROFESSOR _____

434. ORE DRESSING.—General principles and theory of ore dressing, cleansing, crushing, sizing and classifying, jigging, table concentrating, and stamp milling of gold and silver ores, with description of typical ore dressing works. Lectures and recitations three hours a week.

PROFESSOR _____

METALLURGY

436. GENERAL METALLURGY.—Elementary study of fuels and furnaces and the metallurgy of iron, steel, copper, lead, silver, and gold. Lectures and recitations three hours a week.

PROFESSOR _____

428. ASSAYING.—Fire assaying of various classes of ores and furnace products of gold, silver, and lead. Laboratory work one afternoon a week with occasional lectures and recitations.

PROFESSOR _____

SHORT COURSE IN ELECTRICAL AND MECHANICAL ENGINEERING

MR. TEAGUE, MR. MCKINLEY, MR. KING, MR. IRBY, MR. STARBIRD,
MR. JONES, MR. THOMPSON

The following course is offered to students who have at least a grammar school education and who desire to prepare themselves better for advancement in the trades, or who desire to become familiar with the care, operation, and repair of some line of machinery. The course is intended to give the student a working knowledge of steam, gas, and electrical machinery, in addition to his shop training.

Upon the satisfactory completion of two years of work, a certificate will be issued.

COURSE OF STUDY

FIRST YEAR

Autumn Term

	HOURS	
	RECITATION	PRACTICE
(41) Steam Boilers	4	4
(44) Elementary Electricity	4	4
(11) Drawing .....	..	4

(20) Shop Work	8
(4) Arithmetic	4
(1) Physics	4

Winter Term

HOURS

	RECITATION	PRACTICE
(42) Steam Engines	4	4
(45) Direct Current Machinery	4	4
(12) Drawing	4	4
(21) Shop Work	8	8
(5) Arithmetic	4	4
(2) Physics	4	2

Spring Term

HOURS

	RECITATION	PRACTICE
(43) Gas Engines	4	4
(46) Alternating Current Machinery	4	4
(13) Drawing	4	4
(22) Shop Work	8	8
(6) Geometry	4	4
(3) Physics	4	2

SECOND YEAR

Autumn Term

HOURS

	RECITATION	PRACTICE
(62) Electrical Machinery and Laboratory	4	4
(51) Steam and Gas Machinery and Laboratory.....	4	4
(14) Technical Drawing	4	4
(23) Shop Work	4	4
(7) Algebra	4	4
(27) Mechanics	4	4

Winter Term

HOURS

	RECITATION	PRACTICE
(63) Electrical Machinery and Laboratory	4	4
(52) Steam and Gas Machinery and Laboratory.....	4	4
(15) Technical Drawing ..	4	4
(24) Shop Work	4	4
(8) Trigonometry ..	4	4
(28) Mechanics ..	4	4

Spring Term

HOURS

	RECITATION	PRACTICE
(64) Electrical Machinery and Laboratory	4	4
(53) Steam and Gas Machinery and Laboratory.....	4	4
(16) Technical Drawing ..	4	4
(25) Shop Work	4	4
(9) Algebra ..	4	4
(29) Mechanics ..	4	4

GENERAL EXTENSION DIVISION

ADMINISTRATIVE OFFICERS

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JOHN CLARK JORDAN, B. A., M. A., Ph. D., *In Charge of Arkansas High School Debating League.*

EVANGELINE PRATT, B. A., *Executive Secretary, In Charge of Visual Instruction.*

WILLIAM B. STELZNER, B. E. E., E. E., M. S., *In Charge of Engineering Instruction.*

_____, *In Charge of Correspondence Instruction.*

STAFF

FREDERICK H. ADLER, B. A., M. A., Ph. D., *Professor of German and English.*

FREDERICK G. BAENDER, B. M. E., *Professor of Heat Power Engineering.*

GILBERT HAVEN CARY, B. A., M. A., Ph. D., *Professor of Geological and Mining Engineering.*

N. ANDREW N. CLEVEN, Ph. B., Ed. B., Ph. D., *Assistant Professor of History.*

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ARTHUR M. JORDAN, B. A., M. A., Ph. D., *Professor of Psychology.*

ANTONIO MARINONI, B. A., M. A., *Professor of Romance Languages.*

RALPH H. MASON, B. S. A., *Assistant Professor of Animal Husbandry.*

LYNN W. OSBORN, B. S. A., *Assistant Professor of Agronomy.*

SIDNEY PICKENS, *Instructor in Education.*

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HENRY H. STRAUSS, B. A., M. A., *Professor of Ancient Languages.*

DAVID Y. THOMAS, B. A., M. A., Ph. D., *Professor of History.*

HENRY D. TOVEY, B. Mus., Mus. D., *Pianist, University Lyceum Course.*

BIRTON N. WILSON, B. S., M. E., M. M. E., *Professor of Experimental Engineering and Drawing.*

ELIZABETH P. WILSON, *Instructor in Education.*

The purpose of the University of Arkansas is to serve not only a group of qualified resident students, but all the people of the state. To this end the University Extension Service was established, the General Extension Division to represent the Colleges of Engineering, Arts and Sciences, Education, and the Agricultural Extension Division to represent the College of Agriculture.

The General Extension Division places at the disposal of the people of Arkansas the same opportunities for instruction and culture offered resident students, disseminates the valuable knowledge obtained from research and investigation, and is the medium through which many educational and public service resources outside the state are made available for effective public use.

The activities of the General Extension Division may be classified under the following heads. It should be understood, however, that the services rendered are by no means limited to those mentioned. The scope of the usefulness of the Division extends into new fields whenever an opportunity to be of service presents itself.

CORRESPONDENCE INSTRUCTION. To those persons who cannot attend the University, the Bureau of Correspondence Instruction furnishes extension courses in vocational, technical, and cultural subjects, carrying the same credit as residence courses and supervised by the same instructors. A certificate is granted upon completion of every course. This service is invaluable professionally to teachers, working men, business men, and students working toward a degree, as well as to persons studying for culture alone. A number of preparatory courses is offered for those individuals to whom high school training is not available or practicable. Any grammar school graduate may enroll in these courses.

SUPERVISED CLUB STUDY. Subjects which are of greatest interest to the clubs of the state are selected by the General Extension Division and courses of twelve lessons are prepared on each of them. Each lesson consists of questions and references and makes up a complete program for one meeting. The leader for each meeting reports on the lesson in advance to the University instructor in charge of the course, who returns her paper with criticisms and suggestions. In addition to the sets of lessons and the University instruction, the General Extension Division prepares the club yearbook from the material which is furnished by the club, and sends a copy to each member.

VISUAL INSTRUCTION.—The place of visual instruction in modern education is assured. It is well known that boys and girls can receive more mental stimulation through the eye, through pictures which claim their involuntary attention, than they would gain from reading many textbooks. With this in mind, it is the function of the Bureau of Visual Instruction to collect and prepare material for visual education and to distribute it throughout the state at as small an expense to the community as possible.

This Bureau is now the distributing center for films, slides, and charts from many sources. These and the material owned by the General Extension Division, are loaned free of charge, the borrower paying the transportation charges.

Besides the present service rendered in furnishing reliable material to persons and organizations from a convenient center, the Bureau keeps in touch with the most recent developments in visual education and is accumulating as fast as possible a valuable slide and film library.

LECTURES AND ENTERTAINMENTS.—The General Extension Division arranges for lectures and entertainments to be given by prominent professional men and women, ministers, musicians, state officials, and university professors over a wide range of subjects. This service gives business men an opportunity to hear talks by experts in their particular fields; gives women an opportunity to attend lectures of definite interest to them; furnishes speakers and musical programs for special occasions; and serves to extend the educational influence of the University generally, as well as to further community spirit.

At present there is no fund available to cover the expense connected with this service. Consequently the General Extension Division is compelled to charge a small fee, which is the same for all towns in the state, so that the towns near Fayetteville have no advantage over those more remote.

LYCEUM COURSES.—The General Extension Division can furnish a limited number of lyceum courses. These courses are offered at cost. Their quality is above the average, many of the numbers being given by University artists.

In securing other talent, the General Extension Division gets an option on a number of engagements for professional concert companies and entertainments, and acts as a clearing house for these dates. In this way much can be saved on the cost of the local lyceum course.

ARKANSAS HIGH SCHOOL DEBATING LEAGUE.—To promote consideration and discussion of present day problems, the General Extension Division has organized the Arkansas High School Debating League. The schools in the League are supplied with debating material and triangular debates are held to determine the winning team. The winners then come to the University for the final debates and honors.

CIVIL SERVICE.—Extension classes are organized in any community and in any subject where the enrollment justifies it. These classes are taught by University professors. The courses given are standard courses under the supervision of the College under which they fall, and University credit is granted those who complete the work.

TALKS, MUSIC, REVERIES.—To cultivate an appreciation and understanding of good music, the General Extension Division sends out sets of the best records, selected by the Department of Fine Arts, making up complete programs, accompanied by suitable lecture material.

CLUB STUDY OUTLINES.—Study outlines are furnished free of charge on subjects of interest to clubs. Lists of references are furnished with these outlines; it is often possible for such reference books to be loaned from the University Library through the General Extension Division.

PLAYS AND REPERTOIRE.—To assist in the selection of good plays, the General Extension Division lends copies from its library of plays from which one may be selected for local use. Postings may be borrowed copies of the most suitable ones made, and the originals returned.

GENERAL INFORMATION.—The General Extension Division endeavors to answer questions and give information on all subjects. Lists of references and packages of collected material may be procured whenever possible. This service is free, and will be found invaluable by individuals, clubs, civic societies, and other organizations.

COMMUNITY INSTITUTES.—To secure unified action toward community improvement, the General Extension Division conducts community institutes, designed to make systematic investigation of local problems and to carry on profitable discussion which will lead to the solution of such problems. These institutes consist of one, two, or three day programs on which appear local people, the best known men and women from the State Departments, clubs and associations, and from the University and other educational institutions. Lectures and illustrated talks are

given, demonstrations offered, motion pictures shown, and conferences held. Modern business methods, cooperation between merchant and farmer, public health, city beautification, and similar subjects are considered. "Get together meetings" are held at night, consisting of musical programs, picture shows, home talent plays, informal discussions, and similar things of interest.

SCHOOL SURVEYS.—During the past year the College of Education has made a survey of the Fort Smith school system which has proved to be one of the most comprehensive surveys ever made in the United States. It has already assisted the teachers of Harrison in making an auto survey of their own school system. Now that the Fort Smith schools have been thoroughly surveyed with national standards in mind, it will not be difficult for other Arkansas schools to compare their work and organization with such national standards.

EDUCATIONAL INFORMATION AND ASSISTANCE.—Through the General Extension Division, the College of Education offers its services to any community making an effort to improve its system of public schools. The members of the faculty are ready at all times to address county and city teachers' meetings, women's clubs, and other organizations on educational topics. Any school problem whatever, which may arise, will be carefully considered and capable assistance given.

The Bureau of Tests and Measurements is maintained for the purpose of assisting the school systems of Arkansas in standardizing their work in the various grades. It is ready to furnish at cost the best tests available, or in case the tests needed are not in stock, to put those interested in touch with the proper source of supply. The Bureau will tabulate results, score papers, when necessary, and publish from time to time bulletins showing the comparative standing of the schools cooperating. The results will be interpreted by experts and recommendations made to the principals and superintendents as to possible changes in curriculum, standards of promotion, or treatment of individual cases.

The College of Education publishes regularly a bulletin of abstracts and reviews, for the purpose of selecting from the numerous books which appear each year the most valuable ones for the use of teachers, and to aid the intelligent choice of books for the school room library.

A Recommendation Bureau is maintained to assist in placing students of the University in teaching positions. This service is free and has proved invaluable in bringing together good situations and suitable teachers.

COLLEGE OF AGRICULTURE

The courses in the College of Agriculture are designed to train men for work in agriculture as farmers, farm managers, county agricultural agents, teachers of vocational agriculture, animal hus-

bandmen, horticulturists, managers of farmers' organizations, marketing agents, research and extension specialists, and various other lines of work now open to graduates of colleges of agriculture; and to train women for work in Home Economics as teachers, vocational teachers in Smith-Hughes schools, county home demonstration agents, dietitians, managers of homes, and similar duties.

ADMISSION

For detailed statement of entrance requirements and descriptions of subjects accepted for entrance, see page 21.

COURSES OF STUDY

The College of Agriculture offers the following courses:

1. A four-year general course in Agriculture.
 2. A four-year course in Agronomy.
 3. A four-year course in Animal Husbandry.
 4. A four-year course in Dairy Husbandry.
 5. A four-year course in Horticulture.
 6. A four-year course in Plant Pathology.
 7. A four-year course in Agricultural Education for teachers in Smith-Hughes Vocational Schools, offered in conjunction with the College of Education.
 8. A four-year course in Agriculture for the training of County Agents and other Extension workers.
- All of the above courses lead to the degree of Bachelor of Science in Agriculture (B. S. A.). In addition, special short courses in agriculture are offered.
9. A four-year course in Home Economics.
 10. A four-year course in Home Economics for the training of teachers in Smith-Hughes Vocational Schools offered in conjunction with the College of Education.
 11. A four-year course for home demonstration agents.

The above courses lead to the degree of Bachelor of Science in Home Economics (B. S. H. E.). In addition, special short courses are given for farm women and others.

REQUIREMENTS FOR DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURE

The candidate must meet the entrance, residence, and registration requirements and must complete satisfactorily two hundred and ten credit hours as outlined in the following courses of study. The first two years are considered as foundation years and are the same for all courses in agriculture. The Junior and Senior years involve more highly specialized work.

FOUR-YEAR COURSE IN AGRICULTURE

Freshman Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
English 141-142-143	4	4	4
Botany 141-142-143	4	4	4
Chemistry 141-142-143	4	4	4
Plant Propagation (Hort. 141)	4	..	..
Farm Crops (Agron. 141) .....	..	4	..
Farm Dairying (A. H. 141) .....	..	..	4
Wood Work (Agr. Eng. 111)	1	..	..
Forge Work (Agr. Eng. 112) .....	..	1	..
Drawing (Agr. Eng. 113) .....	..	..	1
Military Art 111-112-113	1	1	1
	18	18	18

Sophomore Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Chemistry 241-242	4	4	..
Mathematics 257	5	..	..
Physics 241-242	4	4	..
Agricultural Chemistry 241 .....	..	..	4
Farm Poultry Culture (A. H. 241) .....	..	4	..
Judging Types and Marks (Class. & A. H. 242) .....	..	..	4
Fruit Growing (Hort. 244)	4	..	..
Soils (Agron. 232-233) .....	..	3	3
Comparative Anatomy (Vet. Sci. 231) or Botany .....	..	..	4
Farm Machinery (Agr. Eng. 222) .....	..	2	..
Farm Motors (Agr. Eng. 223) .....	..	..	2
Military Art	1	1	1
	18	18	18

At the beginning of the Junior year the candidate may choose the general course in agriculture, or major and minor subjects in the various departments of the College, the choice of which will determine largely his course of study for the Junior and Senior years.

Students taking any of the major courses outlined on the following pages will choose from courses approved by the candidate's major professor so as to include for the Junior and Senior years not less than thirty credit hours in the major subject and not less than eighteen credit hours in one minor subject.

GENERAL COURSE

The following course is prescribed for those who desire a general course in agriculture. The electives in this general course in the Junior and Senior years are subject to approval by the Dean of the College of Agriculture, and a material proportion of them must be agricultural subjects.

Junior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
English	3	3	3
Feeds and Feeding (A. H. 352) .....	..	5	..
General Bacteriology (Bact. 351) .....	..	..	5
Agricultural Economics (Agr. Econ. 331-332)	3	3	..
Farm Crops (Agron. 331-332-333)	3	3	3
Harvesting, Refrigeration and Marketing (Hort. 311)	4	..	..
Elective	5	4	7 *
	18	18	18

Senior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Farm Management (Agr. Econ. 431-432)	3	3	..
Economic Entomology (Ent. 252)	5	..	..
Plant Pathology (P. P. 331-332)	3	3	..
Farm Building (Agr. Eng. 432) .....	..	3	..
Spraying and Spray Material (Hort. 437) .....	..	..	3
Vegetable Gardening (Hort. 347)	4	..	..
Live Stock Judging (A. H. 331-332)	3	3	..
Electives .....	..	4	12
	17	16	15

*AGRONOMY MAJOR**Junior Year*

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Farm Crops (Agronomy 331-332-333)	3	3	3
Soil Fertility (Agr. Econ. 331-332)	4	4	..
Farm Drainage (Agr. Eng. 323) .....	..	..	2
English	3	3	3
Economic Entomology (Ent. 252)	5	..	..
Agricultural Economics (331-332)	3	3	..
General Bacteriology (Bact. 351) .....	..	..	5
Minor (Elective) .....	..	5	5
	18	18	18

Senior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Farm Management (Agr. Econ. 431-432) ..	3	3	..
Farm Buildings (Agr. Eng. 432) .....	..	3	..
Plant Pathology (Plant Path. 331-332) ..	3	3	..
Electives	10	7	16
	16	16	16

ANIMAL HUSBANDRY MAJOR

Junior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
English	3	3	3
Agricultural Economics (Agr. Econ. 331, 332).....	3	3	..
Gen. Bacteriology (Bact. 351) .....	..	..	5
History of Breeds and Pedigrees (A. H. 351).....	5	..	..
Feeds and Feeding (A. H. 352) .....	..	5	..
Animal Breeding (A. H. 353) .....	..	..	5
Live Stock Judging (A. H. 331, 332) .....	..	3	3
Animal Physiology (Vet. Sci. 331)	3	..	..
Animal Diseases (Vet. Sci. 332) .....	..	3	..
Electives	4	1	2
	18	18	18

Senior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Farm Management (Agr. Econ. 431, 432)	3	3	..
Farm Buildings (Agr. Eng. 432) .....	..	3	..
Economic Entomology 252	5	..	..
Live Stock Practicums (A. H. 432)	3	..	..
Meat and Its By-Products (A. H. 430) .....	..	3	..
Elective	5	7	16
	16	16	16

DAIRY HUSBANDRY MAJOR

Junior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
English	3	3	3
Agricultural Economics (Agr. 331, 332).....	3	3	..
Gen. Bacteriology (Bact. 351) .....	..	..	5
History of Breed and Pedigrees (A. H. 351)	5	..	..
Feeds and Feeding (A. H. 352) .....	..	5	..
Animal Breeding (A. H. 353) .....	..	..	5
Animal Physiology (Vet. Sci. 331)	3	..	..
Animal Diseases (Vet. Sci. 332) .....	..	3	..
Creamery Butter Making and Accounting (A. H. 341) .....	..	4	..
Dairy Stock Judging (A. H. 333) .....	..	..	3
Electives	4	..	2
	18	18	18

Senior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Farm Management (Agr. Econ. 431, 432) ..	3	3	..
Farm Buildings (Agr. Eng. 432) .....	..	3	..
Economic Entomology 252	5	..	..
Milk Production (A. H. 437)	3	..	..
Agricultural Bacteriology (Bact. 543) .....	..	4	..
Electives	5	6	16
	16	16	16

HORTICULTURE MAJOR*Junior Year*

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Vegetable Gardening (Hort. 341)	4	..	..
Orchard Management (Hort. 342) .....	..	4	..
Small Fruits (Hort. 343) .....	..	..	4
English	3	3	3
Economic Entomology (Ent. 252)	5	..	..
Farm Buildings (Agr. Eng. 432) .....	..	3	..
Agricultural Economics (Agr. Econ. 331-332).....	3	3	..
Electives	3	5	11
	18	18	18

Senior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Harvesting, Refrigeration and Handling of Fruits for Market (Hort. 441)	4	..	..
Market Gardening (Hort. 348) .....	..	4	..
Spraying and Spray Machinery (Hort. 437) .....	..	..	3
Plant Pathology (P. P. 331)	3	..	..
Farm Management (Agr. Econ. 431-432)	3	3	..
Electives	6	9	8
Bacteriology (351) .....	..	..	5
	16	16	16

PLANT PATHOLOGY MAJOR*Junior Year*

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Botany (Bot. 242)	4	..	..
English	3	3	3
Botany (Bot. 341) .....	..	4	..
Agricultural Economics (Agr. Econ. 331-332).....	3	3	..
Plant Pathology (P. P. 131-132)	3	3	..
Botany (Bot. 551) .....	..	3	..
Economic Entomology (Ent. 252)	5	..	..
Elective .....	..	2	15
	18	18	18

Senior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Plant Pathology (P. P. 452-453-454)	5	5	5
Plant Pathology (P. P. 435-436-437)	3	3	3
Horticulture (Hort. 437) .....	..	..	3
Farm Management (Agr. Econ. 431-432)	3	3	..
Farm Buildings (Agr. Eng. 432) .....	..	3	..
Electives	5	2	5
	16	16	16

AGRICULTURAL EDUCATION MAJOR

The following courses are required for those who choose Agricultural Education as a major. This course is offered by agree-

ment between the College of Education and College of Agriculture, and is as follows (see page 95) :

Junior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
English 331 (332) (333)	3	3	3
Farm Crops (Agronomy 331, 332, 333) ..	3	3	3
Agricultural Economics 331 (332)	3	3	..
Psychology of Teaching 242	4	..	..
Teaching Process (Education 130) ...	..	3	..
Observation and Curriculum (Education 131) ..	..	..	3
History of Breeds and Pedigrees (A. H. 351) ..	5	..	..
Bacteriology 352 .....	..	..	5
Farm Buildings (Agr. Engr. 432) .....	..	3	..
Vocational Education .....	..	3	..
Agricultural Elective .....	..	..	4
	18	18	18

Senior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Farm Management (Agr. Econ. 431, 432)	3	3	..
Principles Secondary Education (Education 250)....	..	..	5
Vocational Agricultural Education 330 .....	..	3	..
Special Methods (Education 332) .....	..	..	3
Practice Teaching	4	4	4
Vegetable Gardening (Hort. 347)	4	..	..
Economic Entomology 351	5	..	..
Agricultural Electives .....	..	6	4
	16	16	16

AGRICULTURAL EXTENSION WORK MAJOR

For those who desire the Special Training Course for County Agents and other Extension Workers, the Junior and Senior years will be the same as the General course in Agriculture with the addition of the following:

Junior Year

In addition to this General Course, such Electives as may be suggested by the Dean of the College, or the Director of Extension Work.

Senior Year

Extension Organization and Methods, two hours per week.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF SCIENCE IN HOME ECONOMICS

The candidate must meet the entrance, residence, and registration requirements and must complete satisfactorily one hundred and ninety-eight hours in approved courses as outlined below. The first two years' work is the same for all courses.

Freshman Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
English 131, 132, 133	3	3	3
Chemistry 141, 142, 143	4	4	4
Elementary Sewing (H. E. 131, 132, 133)	3	3	3
Elementary Design (H. E. 124, 125, 126)	2	2	2
Physical Education 111, 112, 113	1	1	1
Elective	4	4	4
	17	17	17

Sophomore Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Zoology 241, 242 and Zoology 243, or Botany 141	4	4	4
Foods (H. E. 231, 232, 233)	1	3	3
Chemistry 241	4		
Elective		2	
Chemistry 242			4
Clothing Economics (H. E. 234, 235, 236)	3	3	3
Costume Design (H. E. 221, 222)	2	2	
Textiles (H. E. 223, 224)		2	2
Physical Education 211, 212, 213	1	1	1
	17	17	17

After the second year the student may choose one of the following courses:

*GENERAL COURSE**Junior Year*

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Food Economics (H. E. 331, 332)	3	3	
Bacteriology 352	5		
Psychology 140		4	
Modern Language	3	3	3
Chemistry 244, or 247		4	
*Elective	5	2	13
	16	16	16

Senior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Dietetics (H. E. 334, 335, 336)	3	3	3
Home Making (H. E. 344)			4
House Architecture (H. E. 441), House Decoration (H. E. 442), Women and Social Work (H. E. 443)	4	4	4
Modern Language	3	3	3
*Elective	6	6	2
	16	16	16

*To be chosen on advice of major professor. A maximum of 12 hours in senior work will be given a credit toward the degree of Bachelor of Science in Home Economics, including the first year's work. Not more than 6 hours may be taken in any one year.

VOCATIONAL HOME ECONOMICS TEACHER TRAINING COURSE

(For first two years see page 129.)

The Teacher's Certificate, in addition to the degree of Bachelor of Home Economics, is granted to all candidates for a degree who complete the following courses. This course is offered by agreement between the College of Education and College of Agriculture and is designed especially for the training of teachers of Vocational Home Economics in Smith-Hughes Vocational Schools (see page 91):

Junior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Food Economics (H. E. 331, 332)	3	3	..
Bacteriology 352	5	..	..
Economics 340	4	..	..
Education 250	..	5	..
Education 130	..	3	..
Education 140	4	..	4
Psychology 242 or 140	..	4	..
Home Nursing and Child Care (H. E. 342)	..	..	4
Methods of Teaching Home Economics (Educ. 341)	..	..	4
*Elective	4	1	4
	16	16	16

Senior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Household Management (H. E. 361)	6	..	..
Dietetics (H. E. 334, 335, 336)	3	3	3
House Architecture (H. E. 441), House Decoration (H. E. 442), Women and Social Work (H. E. 443)	4	4	4
Practice Teaching (Ed. 240)	..	6	6
*Elective	3	3	3
	16	16	16

HOME DEMONSTRATION COURSE

Junior Year

Course	CREDIT HOURS		
	AUTUMN TERM	WINTER TERM	SPRING TERM
Food Economics (H. E. 331, 332)	3	3	..
Bacteriology 352	5	..	..
Psychology 140	..	4	..
Economics 340	4	..	..
Home Nursing and Child Care (H. E. 342)	..	..	4
Plant Propagation (Hort. 141)	4	..	..
Poultry Husbandry (A. H. 141)	..	..	4
*Elective	..	9	8
	16	16	16

*To be chosen on advice of major professor. A maximum of 12 hours in minor will be given as credit toward the degree of Bachelor of Science in Home Economics, including the first year's work. Not more than 6 hours may be taken in any one year.

and the methods of conducting the business of such organizations.

PROFESSOR ———.

332. COOPERATIVE ORGANIZATIONS.—Cooperative principles applied to well-known agricultural activities such as cooperative elevators, creameries, warehouses, stock shipping associations, marketing associations, and others.

PROFESSOR ———.

333. ACCOUNTING AND MANAGEMENT OF COOPERATIVE ENTERPRISES.—Systems of accounting, business methods, and management of cooperative organizations.

PROFESSOR ———.

421. MARKETING. (Elective).—General principles of marketing, classing, standardization, accounting, and practices in marketing farm produce. To correlate the marketing work taken up by the subject matter division in production courses.

PROFESSOR KNAPP.

431 (432). FARM MANAGEMENT.—General principles of farm management; choice of the farm; types of farming; farming as a business; administration; cost of production; records and accounts.

PROFESSOR McNAIR.

433. FARM MANAGEMENT (Elective).—Advanced course in farm management, farm accounting, relationship of landlord and tenant, and related subjects.

PROFESSOR McNAIR.

521. EXTENSION ORGANIZATION AND METHODS.—The history of extension work, its origin and development; general principles involved; method of organization in state and county; manner of conducting demonstrations with farmers; means of ascertaining agricultural problems and planning work on a community, county and state-wide basis; methods of approach.

PROFESSOR KNAPP.

AGRICULTURAL ENGINEERING

(Under the Joint Supervision of the Dean of the College of Agriculture and the Dean of the College of Engineering.)

This department offers courses in drainage construction of farm buildings and other structures, wood work, iron work, drawing of plans, modern farm machinery, farm motors and other power equipment. The object is to train the student in the knowledge and use of modern farm machinery and equipment, its adjustment and uses, and in the construction of proper buildings and in other engineering problems of modern farming.

111. WOOD WORK.—Carpentry, relating especially to construction of devices used on farms.

PROFESSOR ———.

112. **FORCE WORK.**—Handling of iron and blacksmithing, especially applicable to ordinary farm practices.

PROFESSOR ———.

113. **DRAWING.**—To familiarize students with the principles of drawing and drafting in order to perfect them in making plans for building, drawing outlines of farms, and related work.

PROFESSOR ———.

222. **FARM MACHINERY.**—To familiarize students with the design, uses, adjustment and handling of types of modern farm implements and tools, such as riding plows, disk harrows, seeders, manure spreaders, mowers, harvesters, and other implements used in the tillage of soil and production of crops.

PROFESSOR ———.

223. **FARM MOTORS.**—The general principles of gas engines, tractors, trucks, and other power equipment on the farm.

PROFESSOR ———.

323. **FARM DRAINAGE.**—The principles of ordinary drainage of lands, including ditching, tiling, terracing; prevention of erosion, and effect of drainage on soils.

PROFESSOR ———.

432. **FARM BUILDINGS.**—The planning and construction of farm buildings and other structures, including their arrangement, convenience, sanitation, and other problems.

PROFESSOR ———.

AGRONOMY

PROFESSOR NELSON, ASSOCIATE PROFESSOR SACHS, ASSISTANT PROFESSOR OSBORN, ASSISTANT PROFESSOR WARE, MR. AUSTIN

The courses in this department are designed to meet the requirements of: (1) students who desire a knowledge of the subject as a part of a general education; (2) students who are interested especially in farm operations, or the management of land; (3) students who desire a technical knowledge of the subject as a preparation for teaching, or graduate or research work.

142. **AGRONOMY.**—Crops (cotton, corn, small grains, clovers, grasses, forage, and miscellaneous crops), including varieties, strains, quality, the use of score cards; identification of seed grasses, clovers, alfalfa, other legumes and forage crops; weed seed, characteristic adulterants. Stress placed upon the staple crops. Lectures and recitations two hours, laboratory four hours. No prerequisite. Winter. Fee, \$1.00.

ASSISTANT PROFESSOR WARE,
MR. AUSTIN.

212. **COTTON CLASSING.**—The relative value of cotton grades and the factors that determine them, with practical exercises in classing and stapling. Open to any student in the University in

the Sophomore, Junior, or Senior classes. Students in Agronomy 431-432 may not take this course. Winter. Fee, \$2.00.

ASSISTANT PROFESSOR WARE.

232 (233). **SOILS.**—The origin, formation, physical properties, and classifications of soils; soil moisture, its movements and methods of control, drainage, tillage, checking erosion; relation of different physical properties of soil to moisture holding capacity, temperature and aeration, with special reference to soil management. Lectures, recitations, and laboratory three hours. Prerequisites: 142 and Chem. 141-143. Winter and Spring. Fee, \$2.00 each term.

**ASSOCIATE PROFESSOR SACHS,
MR. AUSTIN.**

331. **FARM CROPS.**—A thorough study of corn, including germination tests, planting, cultivation, harvesting, storing, improvement, fertilization, rotation; station work varieties, commercial grading, and marketing. Prerequisites: 142, 232-233. Autumn.

**PROFESSOR NELSON,
MR. AUSTIN.**

332. **FARM CROPS.**—The small grains, including varieties, adaptation, culture; rotation and rotation practices; crop improvement; station work; commercial grading, and marketing. Prerequisites: 142, 232-233. Winter.

**PROFESSOR NELSON,
ASSISTANT PROFESSOR WARE.**

333. **FORAGE CROPS.**—Forage crops, including grasses, clovers, alfalfa, annual legumes and other forage crops; adaptation, utilization, culture, possibilities and methods of improvement; purity and germination tests; weeds and weed control. Prerequisite: 142, 232-233. Spring.

**PROFESSOR NELSON,
MR. AUSTIN.**

345 (346). **SOIL FERTILITY.**—Crop requirements; nature and source of plant foods; exhaustion of soils, maintenance and increase of fertility; green manures, farm manures and commercial fertilizers, biological life of soils, with special attention to the nitrogen problem and liberation of mineral plant foods; rotations and effect of different systems of farming on productivity of the soil, based on a study of the older field experiments. Lectures, recitations and laboratory four hours. Prerequisite: 232-233. Autumn and winter. Fee, \$3.00 each term.

ASSOCIATE PROFESSOR SACHS.

337. **SOIL CLASSIFICATION.**—To familiarize the student with the methods and practice of soil survey work. The important soil types with special reference to Arkansas and the South in

general. Lectures and field practice three hours. Prerequisite: 232-233. Spring. Fee, \$2.00.

ASSOCIATE PROFESSOR SACHS.

431. COTTON PRODUCTION.—An advanced course in the production of cotton. Origin, history, production, composition, and cropping systems. Practical work: the form and structure of the cotton plant and fibre, identification of various groups, and variety studies in the field. Lectures and laboratory three hours. Prerequisites: 142, 232-233. Autumn.

ASSISTANT PROFESSOR WARE.

432. COTTON HANDLING.—Continuation of 431. Cotton improvement by selection and breeding, harvesting, storing, and marketing. Laboratory work: "cotton classing" and "stapling." The government standards used for comparison in classing. Lectures and laboratory three hours. Prerequisites: 142, 232-233. Winter. Fee, \$3.00.

ASSISTANT PROFESSOR WARE.

433. PLANT BREEDING.—The practical application of the principles of variation and heredity to the breeding of general farm crops. Special attention paid to the practical breeding of corn, cotton, small grains, and forage crops. Lectures and recitations four hours. Open only to Seniors. Prerequisites: 331, 431. Spring.

ASSISTANT PROFESSOR WARE.

*435. ADVANCED SOIL PHYSICS.—A study of mechanical analysis, concentration of the soil solution, soil heat, and other physical properties of the soil. Laboratory, conferences, and reports. Prerequisite 233. Autumn. Fee, \$3.00.

ASSOCIATE PROFESSOR SACHS,
MR. AUSTIN.

*437. ADVANCED SOIL FERTILITY.—A more intensive study of some of the important changes taking place in the soil, i. e., ammonification, nitrification, nitration, sulfonation. Laboratory, conferences, and reports. Prerequisite 349. Spring. Fee, \$4.00.

ASSOCIATE PROFESSOR SACHS,
MR. AUSTIN.

421, 422, 423. RESEARCH.—Research work in special problems designed for advanced and graduate students. One to three hours a week. Fee, \$1.00 to \$3.00 a term, according to number of hours taken each week.

PROFESSOR NELSON,
ASSOCIATE PROFESSOR SACHS.

*For advanced students and graduates.

ANIMAL HUSBANDRY AND DAIRYING

PROFESSOR DVORACHEK, ASSISTANT PROFESSOR MASON, ASSISTANT PROFESSOR STOUT, MR. HUNT

This department offers courses in livestock production, poultry production, and dairying. Training is given in the selection, breeding, feeding, development, care, management, and marketing of the various classes and breeds of farm animals. The stock and poultry owned by the department are used to familiarize the student with the various types and breeds of live stock. Students interested in Dairying have an opportunity to study the machinery in operation in a commercial creamery.

141. FARM DAIRYING.—The composition of milk, causes of variation in composition, abnormal milk and its causes, bacteria in milk products, the lactometer, milk adulteration, Babcock testing, milk separation, farm butter making, handling milk products on the farm, and marketing milk and milk products. Lectures and recitations one hour, laboratory six hours. Spring.

ASSISTANT PROFESSOR MASON.

241. FARM POULTRY CULTURE.—The principles of the following subjects in the order given: Breeds, housing, feeding, breeding, incubation, brooding, poultry products, diseases, management, methods of marketing. Lectures and recitations three hours, laboratory three hours. Winter. Fee, \$3.00.

ASSISTANT PROFESSOR STOUT.

242. JUDGING TYPES AND MARKET CLASSES.—Practice in scoring types and market classes of sheep, swine, cattle and horses, using the score card, followed by comparative judging. Emphasis given standardization and grading in marketing, live stock. Lectures and recitations one hour, laboratory nine hours. Spring.

PROFESSOR DVORACHEK,
MR. HUNT.

351. HISTORY OF BREEDS AND PEDIGREES.—The origin, history, development, breed characteristics and adaptation of the more important breeds of sheep, swine, cattle, and horses; the pedigrees of prominent individuals of the various breeds. Autumn.

MR. HUNT.

352. FEEDS AND FEEDING.—The principles of animal nutrition; digestibility of feeds; composition, value and preparation of feeds; construction and use of silos; selection of feeds for balanced rations; and the economical feeding of all classes of farm animals. Winter.

PROFESSOR DVORACHEK.

353. ANIMAL BREEDING.—The principles and the various systems of animal breeding; the application of the principles of genetics to practical animal breeding. Spring.

MR. HUNT.

331. JUDGING BREED TYPES OF SHEEP AND SWINE.—Scoring and comparative judging of breed types of sheep and swine. Breed characteristics given special attention. Animals from the college herds, supplemented by livestock owned by neighboring breeders, used for class work. Laboratory nine hours. Winter.

MR. HUNT.

332. JUDGING BREED TYPES OF BEEF CATTLE AND HORSES.—Scoring and comparative judging of breed types of beef cattle and horses. Breed characteristics given special attention. Animals from the college herds, supplemented by livestock owned by neighboring breeders, used for class work. Laboratory nine hours. Spring.

PROFESSOR DVORACHEK.

333. DAIRYING STOCK JUDGING.—Show yard judging of dairy cattle; classification of animals in the show ring; comparative judging of breed types of dairy cattle. Designed to select and train a judging team for the National Dairy Show. Laboratory nine hours. Spring.

PROFESSOR DVORACHEK.

341. CREAMERY BUTTER MAKING AND ACCOUNTING.—The principles of creamery butter making; construction, care and equipment of creameries; methods of sampling and grading cream; pasteurizing; starter making; cream ripening; creamery accounting; creamery management and marketing of product. Lectures and recitations two hours, laboratory six hours. Winter. Fee, \$3.00.

ASSISTANT PROFESSOR MASON.

430. MEAT AND ITS BY-PRODUCTS.—The slaughtering and dressing of meat animals, meat cutting, curing and utilization of meat by-products. Lectures and recitations three hours, supplemented by demonstrations. Elective only for Junior and Senior students. Winter.

PROFESSOR DVORACHEK.

431. ADVANCED LIVE STOCK JUDGING.—Show yard judging of breed types and market classes of sheep, swine, beef cattle, dairy cattle and horses. Designed to select and train judging teams for live stock judging contests. Laboratory nine hours. Autumn.

PROFESSOR DVORACHEK,

MR. HUNT.

432. LIVE STOCK PRACTICUMS.—Practice in the feeding, care, and management of live stock. Designed to train students in the handling of live stock on the farm and in the show ring. Laboratory nine hours. Autumn.

MR. HUNT,
HERDSMAN.

433. PORK PRODUCTION.—An advanced course in pork production and marketing both from the standpoint of the general and

the special breeder. Problems in management assigned. Lectures and recitations, supplemented by collateral reading of experimental data. Winter.

MR. HUNT.

434. HORSE PRODUCTION.—An advanced course in horse production and marketing, both from the standpoint of the general and the special breeder. Problems in management assigned. Lectures and recitations three hours, supplemented by collateral reading and experimental data. Winter.

PROFESSOR DVORACHEK.

435. POULTRY PRODUCTION.—An advanced course in poultry production. Practical work in incubation, brooding, chick raising, and flock management. Lectures and recitations one hour, laboratory six hours. Spring.

ASSISTANT PROFESSOR STOUT.

436. BEEF PRODUCTION.—An advanced course in beef production and marketing, both from the standpoint of the general and the special breeder. Problems in management assigned. Lectures and recitations three hours, supplemented by collateral reading and experimental data. Autumn.

PROFESSOR DVORACHEK.

437. MILK PRODUCTION.—Dairy farm management and the marketing of dairy farm products, both from the standpoint of the general and the special dairymen. Problems in management assigned. Lectures and recitations three hours, supplemented by collateral reading of experimental data. Autumn.

PROFESSOR DVORACHEK.

438. MUTTON AND WOOL PRODUCTION.—An advanced course in mutton and wool production and marketing, both from the standpoint of the farmer and the range sheepman. Problems in management assigned. Lectures and recitations three hours, supplemented by collateral reading of experimental data. Spring.

MR. HUNT.

439. ICE CREAM AND CHEESE MAKING.—Ice cream and ices, and preparation of materials used in their manufacture for home use and for sale. Various kinds of cheese, Cheddar Cheese making and curing for home use and for sale. The commercial manufacture of Cheddar Cheese and ice cream for retail and wholesale trade. Lectures and recitation one hour, laboratory six hours. Autumn. Fee, \$3.00.

ASSISTANT PROFESSOR MASON.

440. HANDLING POULTRY AND EGGS FOR MARKET.—Poultry fattening, dressing, and shipping, egg candling, storage, grading, packing and handling of poultry and eggs for market. Autumn.

ASSISTANT PROFESSOR STOUT.

441. MARKET MILK AND DAIRY INSPECTION.—Different classes of market milk, transportation, storage, marketing and account-

ing. Practice in the use of score cards for inspecting milk plants, dairy farms, and creameries. Lectures and recitations one hour, laboratory three hours. Spring.

ASSISTANT PROFESSOR MASON.

422 (423) (424). ANIMAL HUSBANDRY OR DAIRY RESEARCH — Senior students majoring in Animal Husbandry or Dairying may, with the consent of their major professor, elect this course. Special problems assigned. Not more than two credits a term allowed.

PROFESSOR DVORACHEK.

BACTERIOLOGY AND PATHOLOGY

PROFESSOR BLEECKER

351. GENERAL BACTERIOLOGY.—Elementary bacteriology to give an understanding of the morphology, classification, and physiological activities of bacteria. Prerequisites: Chemistry 242, Botany 141 and 142. Spring. Fee, \$3.00.

PROFESSOR BLEECKER.

352. HOUSEHOLD BACTERIOLOGY.—Introductory study of the morphology, classification, and physical activities of bacteria, yeasts, and molds, followed by a study of sanitation and the relation of these micro-organisms to the home. Recitations three hours. Prerequisites: Chemistry 242; Zoology 241, or Botany 141. Autumn. Fee, \$3.00.

PROFESSOR BLEECKER.

443. AGRICULTURAL BACTERIOLOGY.—The bacteria of soil and water, and those of milk and milk products. Recitations two hours, laboratory four hours. Prerequisite: 351 or 352. Winter. Fee, \$5.00.

PROFESSOR BLEECKER.

544. PATHOGENIC MICROBIOLOGY.—The disease-producing micro-organisms, the diseases they produce, their dissemination and control. Recitations two hours, laboratory four hours. Prerequisite: 351 or 352. Winter. Fee, \$5.00.

PROFESSOR BLEECKER.

ENTOMOLOGY

PROFESSOR BAERG

The courses offered in entomology are intended to give the student an understanding of the general principles underlying insect life; of the life economy of the more beneficial as well as the more injurious species; and of the fundamental facts governing the control of insect pests.

151. GENERAL ENTOMOLOGY.—Introductory study of the morphology, life history, and classification of insects and their near rel-

atives. Lectures, three hours a week; laboratory four hours. Credit: five hours. Prerequisite: None. Winter. Fee, \$2.50.

PROFESSOR BAERG.

252. ECONOMIC ENTOMOLOGY.—Begins with a brief introduction to the study of insects as a class; includes all the common pests of farm, garden, and orchard, as well as the common insect parasites of domestic animals. Lectures, three hours; laboratory six hours. Credit: five hours. Prerequisite: None. Autumn. Fee, \$2.50.

PROFESSOR BAERG.

233. MORPHOLOGY OF INSECTS.—Takes up in greater detail the laboratory work of General Entomology. Must be preceded or accompanied by 151. Laboratory six hours. Credit: three hours. Autumn. Fee, \$2.00.

PROFESSOR BAERG.

234. ELEMENTARY SYSTEMATIC ENTOMOLOGY.—Laboratory study of the wing venation of insects and of the important distinguishing characteristics used in classifying insects. Laboratory six hours. Credit: three hours. Prerequisite: 151 or 233. Winter. Fee, \$2.00.

PROFESSOR BAERG.

335. ADVANCED ECONOMIC ENTOMOLOGY.—Methods of investigation and control of economic insects. Lectures, one hour a week; laboratory, assigned reading, and report writing, four hours. Credit: three hours. Prerequisites: 151, 252. Spring. Fee, \$2.50.

PROFESSOR BAERG.

326. HOUSEHOLD ENTOMOLOGY.—Life history, habits, and control of insects injurious to the household. Lectures and recitations, two hours. Credit: two hours. Prerequisite: 151. Winter.

PROFESSOR BAERG.

HOME ECONOMICS

PROFESSOR PALMER, ASSISTANT PROFESSOR GRAY, MISS SCHMIDT,

MISS THOMPSON, MISS COWAN, MISS HILL

121 (122) (123). PRACTICAL COOKERY.—An elementary study of the nutritive value of foods, with special emphasis on their preparation in typical dishes. Laboratory four hours. Fee, \$4.00 each term.

MISS SCHMIDT.

124 (125) (126). ELEMENTARY DESIGN.—To give the underlying principles of the theory and practice of design, color and color harmonies. Recitation one hour, and laboratory three hours.

MISS THOMPSON.

131 (132) (133). **ELEMENTARY SEWING.**—Designed to give skill in using and caring for sewing machines, in taking accurate measurements and in adapting commercial patterns. The comparison and selection of materials for their appropriateness, as well as for their economic value. Lecture one hour and laboratory five hours. Fee, 50c each term.

MISS HILL,
MISS COWAN.

134 (135). **ELEMENTARY SEWING.**—The same as above course but adapted to the needs of students offering an admission unit in sewing. Fee, 50c each term.

MISS HILL,
MISS COWAN.

231 (232) (233). **FOOD.**—The principles involved in the selection and preparation of foods, with special stress on the chemistry and nutritive value of the foodstuffs. The lecture work includes manufacture and composition of commercially prepared foods; the laboratory work applies scientific principles of preparation. Lecture two hours and laboratory four hours. Prerequisite: Chemistry 141-143. Fee, \$5.00 each term.

MISS SCHMIDT.

234 (235) (236). **CLOTHING ECONOMICS.**—The technique and principles of costume designing and their practical application in the design and construction of garments; the use by each student of patterns drafted by herself to her own measurements. Lecture one hour and laboratory five hours. Prerequisites: 124-126, 131-133. Fee, 50c each term.

MISS HILL.

221 (222). **COSTUME DESIGN.**—The principles of design and color harmony applied to costume. A short review of the history of costume. Lecture one hour, laboratory two hours. Prerequisite: 124-126. Autumn and Winter. Fee, \$1.00 each term.

MISS THOMPSON.

223 (224). **TEXTILES.**—The source of supply, structure, manufacture, and relative value of fabrics. Laboratory practice in the identification of fibers and the analysis of fabrics, in weaving, dyeing, and special methods of laundering. Lecture one hour, laboratory two hours. Prerequisite: Chemistry 141-143. Fee, \$1.00 each term.

MISS COWAN.

331 (332). **FOOD ECONOMICS.**—The food problems of the household, including food preservation, the cost and nutritive value of food materials, their combination in typical meals, the preparation and service of meals, and dietetic requirements of individual members of the family group. Lecture one hour, lab-

oratory four hours. Prerequisite: 231-233. Autumn and Winter. Fee, \$5.00 each term.

MISS SCHMIDT.

334 (335) (336). DIETETICS.—The fundamental principles of human nutrition as applied to the feeding of individuals under normal conditions and under pathological conditions chiefly depending upon diet. Lectures and recitations two hours, laboratory two hours. Prerequisites: 331-332, Zoology 241-242, Chemistry 241-242. Fee, \$4.00 each term.

MISS COWAN.

342. HOME NURSING AND CHILD CARE.—Elementary principles in the care of the sick, care and arrangement of the bedroom, food for the convalescent, and first aid. Lecture three hours, laboratory two hours. No prerequisite. Winter. Fee, \$1.00.

PROFESSOR PALMER.

361. HOUSEHOLD MANAGEMENT.—The social, economic and practical problems of home management. The laboratory work consists of the actual care of the house and the performing of all household duties such as budget making, accounting, marketing, preparation of daily meals, and a study of their dietary value and cost. Lectures and recitations two hours, laboratory as arranged. Prerequisite: 124-126. Autumn. Fee, 50c.

MISS SCHMIDT.

441. HOUSE ARCHITECTURE.—A detailed study of the situation, sanitation, and construction of the house. Laboratory work includes complete plans of bungalow, a two-story house, and one problem in remodeling. Lecture two hours, laboratory four hours. Prerequisite: 124-126. Autumn. Fee, 50c.

MISS THOMPSON.

442. HOUSE DECORATION.—The principles of design and color applied to interior decoration; problems in the cost and selection of floor, wood work and wall finishes. Lecture two hours, laboratory four hours. Prerequisite: 441. Winter. Fee, 50c.

MISS THOMPSON.

443. WOMEN AND SOCIAL WORK.—A survey of the fundamental laws of heredity and environment; the relation of social conditions to morality; the relation of the home-maker to the social and political life of the community. Topics assigned. Open to Seniors and Juniors. Prerequisite: Economics 340. Spring.

MISS COWAN.

444. HOUSE FURNISHING.—The principles of design and decoration as applied to household furnishings, including a study of textiles, design, and color of hangings and tapestries. Laboratory work covers the furnishing of typical homes at a specified cost. Recitation two hours, laboratory four hours. Prerequisite: 441-442. Any term. Fee, 50c.

MISS THOMPSON.

511. **SPECIAL PROBLEMS.**—The student may elect some special problem in the major subject for special research. Special conferences with the instructor. Open to Seniors and Graduate students. Autumn.

PROFESSOR PALMER.

521. **MILLINERY**—The designing and drafting of patterns for different types of hats, including the principles underlying their construction and trimming. A model of each type made by each student. Lecture one hour and laboratory four hours. Prerequisites: 131-133, 124-126. Autumn. Fee, \$1.00.

MISS HILL.

523. **ART NEEDLEWORK.**—Instruction and practice in the various types of art needle work and the application of these types. Laboratory four hours. Prerequisite: 131-133, 124-126. Spring.

MISS THOMPSON.

524 (525) (526). **ARTS AND CRAFTS**—Directly applies well recognized principles of general design to specific materials, and problems encountered in Industrial Arts. Laboratory four hours. Prerequisite: 124-126. Fee, \$1.00 each term.

MISS THOMPSON.

For Home Economics Methods (Education 341) see page 91.

Home Projects during summer vacation will be planned in all courses where necessary to meet individual needs.

HORTICULTURE

PROFESSOR COOPER, ASSISTANT PROFESSOR RAPP

The courses offered in this department are designed to give the student a thorough knowledge of the principles and practices of the different phases of horticulture. The work is so arranged that it will meet the needs of students interested in its practical application, or of students who desire a technical knowledge of the subject as a preparation for college teaching, or research work.

Students who have had the necessary fundamental training in related subjects, and who desire to fit themselves for teachers or investigators, may receive employment during a part of their time in the laboratory and fields.

141. **PLANT PROPAGATION**—The methods employed in reproducing and multiplying plants, seedlings, graftage, construction and management of hotbeds and cold frames, and general nursery and garden practices. Two hours lecture. Four hours laboratory. Autumn. Fee, \$1.50.

ASSISTANT PROFESSOR RAPP.

237. **FLORICULTURE**—Propagation, cultivation, and management of decorative and flowering plants for the house, conservatory greenhouse and garden. Two hours lecture. Two hours laboratory. Prerequisite: 141. Spring. Fee, \$1.00.

ASSISTANT PROFESSOR RAPP.

238. **LANDSCAPE GARDENING.**—Planting materials and their arrangement in landscape gardening, with reference to farm and city homes, and school grounds. Two hours of preparation. Two hours of lecture. Two hours of laboratory. Prerequisite: 141. Winter. Fee, \$1.00.

ASSISTANT PROFESSOR RAPP.

244. **PRINCIPLES OF FRUIT GROWING.**—The general principles involved in planning, planting, and operating home and commercial orchards. Every phase of orcharding and fruit growing and all problems confronting the practical orchardist. Actual practice in pruning, mixing, and applying sprays, and in harvesting, packing and storing fruit. Two hours of lecture. Four hours of laboratory. Prerequisite: 141. Autumn. Fee, \$1.50.

PROFESSOR COOPER.

341. **VEGETABLE GARDENING.**—The general and fundamental principles of vegetable growing and the practical problems involved in handling the various vegetable crops. All of the principal vegetable crops will be studied from the standpoint of planting, cultural methods, soils and fertilizers, insect and disease control, harvesting and storing. Two hours lecture. Four hours of laboratory. Prerequisite: 141. Autumn. Fee, \$1.00.

ASSISTANT PROFESSOR RAPP.

342. **ORCHARD MANAGEMENT.**—The cultural methods best adapted to different kinds of fruit including types of soils, air and water drainage, soil fertility, fertilizers, cover and companion crops, and the theory and practice of pruning. Two hours of lecture. Four hours of laboratory. Prerequisites: 141, 244. Winter. Fee, \$1.00.

PROFESSOR COOPER.

ASSISTANT PROFESSOR RAPP.

343. **SMALL FRUITS.**—Grapes, cane fruits and strawberries. Conducted in such a manner that the student will have thorough knowledge of how such fruits should be handled to obtain the best results from the standpoint of the home fruit garden or commercial planting. Two hours of lecture. Four hours of laboratory. Prerequisites: 141, 244. Spring. Fee, \$1.00.

PROFESSOR COOPER.

ASSISTANT PROFESSOR RAPP.

348. **MARKET GARDENING.**—The methods of growing and handling various vegetables such as cabbage, onions, canteloupes, melons, etc., on a large scale by intensive methods. Fertilizers, special cultural methods, harvesting, storage, refrigeration and marketing, and the control of common insect and disease pests. Two hours of lecture. Four hours of laboratory. Prerequisite: 141. Winter. Fee, \$1.00.

ASSISTANT PROFESSOR RAPP.

349. **POTATO PRODUCTION.**—Devoted exclusively to studying the

production and handling of Irish and sweet potatoes under field conditions. Two hours of lecture. Two hours of laboratory. Prerequisites: 141, 348. Spring. Fee, \$1.50.

ASSISTANT PROFESSOR RAPP.

435. SYSTEMATIC POMOLOGY.—The systematic classification, nomenclature, history, origin, and adaptability of each of the various fruits with practical work in judging. Two hours of lecture. Two hours of laboratory. Prerequisites: 141, 244, 343. Autumn. Fee, \$3.00.

PROFESSOR COOPER.

437. SPRAYING AND SPRAY MATERIALS.—Designed to give a thorough practical knowledge of insecticides and fungicides and methods of application for the control of insects, and fungus diseases, together with practice in operating the various kinds of spraying machinery and equipment. Two hours of lecture. Four hours of laboratory. Prerequisites: 141, 244. Spring. Fee, \$3.00.

PROFESSOR COOPER.

441. HARVESTING, REFRIGERATION AND HANDLING.—The general principles involved in harvesting, grading, packing, storing, shipping, and handling fruits for marketing. Methods of handling different kinds of fruit and all of the operations concerned. Storage, refrigeration and transportation. Different orchards and packing houses, storage houses and loading stations will be visited, and construction operation and methods studied. Two hours of lecture. Four hours of laboratory. Prerequisites: 141, 244. Autumn. Fee, \$2.50.

PROFESSOR COOPER,
ASSISTANT PROFESSOR RAPP.

530. EVOLUTION OF CULTIVATED PLANTS AND PLANT BREEDING.—Organic evolution as applied to the modification of plants, particularly of cultivated fruits and vegetables, together with the history of the plants and a study of their environment and original habits. Two hours of lecture. Two hours of laboratory. Seniors and postgraduates. Prerequisites: 141, 244-435, Botany 341. Winter. Fee, \$2.50.

PROFESSOR COOPER,
ASSISTANT PROFESSOR RAPP.

531. PREPARED PRODUCTS.—The manufacture, sale, and use of different products from horticultural crops including cider and vinegar making, dessication and evaporation, canning and preserving, and the manufacture of by-products. One hour of lecture. Four hours of laboratory. Seniors and postgraduates. Winter. Fee, \$3.00.

PROFESSOR COOPER,
ASSISTANT PROFESSOR RAPP.

541, 542, 543. EXPERIMENTAL HORTICULTURE.—Assigned prob-

lems in horticulture. Research work in the laboratory or fields, with practice in compiling data and drawing conclusions. Hours for consultation. Assigned only to students with sufficient fundamental preparation.

PROFESSOR COOPER,
ASSISTANT PROFESSOR RAPP.

PLANT PATHOLOGY

PROFESSOR ELLIOTT, ASSISTANT PROFESSOR ROSEN

The courses in Plant Pathology are designed to give the student a knowledge of the origin, causes, and methods of control of plant diseases both in practical use and as a preparation for special research work in plant pathology. The advanced courses may be elected by students choosing Plant Pathology or Botany as a major.

*331 (332). PLANT DISEASES.—Diseases of plants in relation to parasites and environment; conditions inducing disease, the reaction of diseased organisms, and the methods of disease control. Lectures and recitations two hours, laboratory three hours. Prerequisite: Botany 141-143. Autumn and Winter. Fee, \$2.50 each term.

PROFESSOR ELLIOTT,
ASSISTANT PROFESSOR ROSEN.

*452. MORPHOLOGY OF FUNGI.—The forms and structure of fungi. Lectures and recitations one hour, laboratory eight hours. Prerequisites: Botany 141-213. Autumn. Fee, \$5.00.

ASSISTANT PROFESSOR ROSEN.

*453. SYSTEMATIC MYCOLOGY.—Identification and classification of fungi. Lectures and recitations one hour, laboratory eight hours. Prerequisite: Botany 141-143. Winter. Fee, \$5.00.

PROFESSOR ELLIOTT.

*454. DISEASES OF FOREST TREES.—The important diseases of forest trees with special emphasis on timber rots. Lectures and recitations one hour, laboratory eight hours. Prerequisite: 331-332. Winter. Fee, \$3.00.

ASSISTANT PROFESSOR ROSEN.

*435 (436) (437). PLANT PATHOLOGY METHODS.—The preparation of various artificial nutrient media and the technique of isolating and culturing parasitic fungi and bacteria. Emphasis placed on bacteria in relation to plant diseases. Lectures and recitations one hour, laboratory four hours. Prerequisites: 331-332, Bacteriology 351. Fee, \$2.50 each term.

PROFESSOR ELLIOTT,
ASSISTANT PROFESSOR ROSEN.

*536 (537) (538). PATHOLOGICAL PLANT ANATOMY.—The structure of diseased and dead host tissues with relation to the disease producing organism. Offered only to students who choose

a major in Plant Pathology or Botany, or for graduate credit. Prerequisites: 331-332, 452-453. Fee, \$3.00 each term.

PROFESSOR ELLIOTT,
ASSISTANT PROFESSOR ROSEN.

*521 (522) (523). PLANT PATHOLOGY RESEARCH II.—A special problem to be assigned only to students who take Plant Pathology as a major. Prerequisite: 435-437.

PROFESSOR ELLIOTT.

VETERINARY SCIENCE

ASSISTANT PROFESSOR SYFERT

241. COMPARATIVE ANATOMY.—To give a general idea of the development and structure of the different domesticated animals during embryonic life and until maturity, so as to understand the benefits to be derived from proper breeding and care of farm animals. Prerequisite: None. Spring.

ASSISTANT PROFESSOR SYFERT.

331. ANIMAL PHYSIOLOGY.—To give a useful knowledge of the functions of the body in the various farm animals, so as to understand the benefits to be derived from the judicious application of proper breeding, feeding, and care of farm stock. Prerequisite: 241. Autumn.

ASSISTANT PROFESSOR SYFERT.

332. ANIMAL DISEASES.—Infectious and non-infectious diseases, their causes, symptoms, and prevention; lameness, its causes, diagnosis, prevention and cure; obstetrics; simple surgery; State and Federal live stock regulations. Prerequisites: 241 and 331. Winter.

AGRICULTURAL EXPERIMENTAL STATION

PURPOSE

The purpose of the Experiment Station is to determine facts, work out problems, and make investigations that have a bearing upon the agriculture of the state and the country in general. The results of investigations are published in bulletin form and distributed free. All information in possession of the various departments of the institution is available to citizens of the state upon request. The farmer is in this way relieved of the time, labor, and expense involved in working out experiments for himself. He also receives the benefit of facts that only the best trained specialists are capable of determining. Practically all of the agricultural information that we possess and put into practice is based upon experiment station efforts. The results of the Experiment Station work constitute a large part of the foundation for the work of the Division of Agricultural Extension work.

STAFF

The working staff of the Experiment Station is practically identical with the teaching force of the College of Agriculture. Members of the staff are required to do both teaching and research work in their respective fields. The work of the station is continuous throughout the year. Research work constitutes the major burden of the staff.

The *Department of Agricultural Chemistry* carries on investigations dealing with the application of chemistry to agriculture. Its laboratories are fitted with improved modern apparatus. Its principal work is concerned with the chemistry of soils, feeds, fertilizers, and the chemistry of animal nutrition.

The *Department of Agricultural Economics* is conducting investigations, in cooperation with the United States Department of Agriculture, in systems of farming in Arkansas, farm management problems in Arkansas, labor requirements for different crops, cost of production, and similar subjects. This Department was first established in 1920. As its duties increase, other work of investigational nature, including the subject of rural organizations, cooperative organizations, and marketing, will be undertaken.

The *Department of Agricultural Engineering* has just been established, the Legislature providing funds for this Department for the first time. It will investigate the subject of farm machinery, farm buildings and other structures, farm motive power (including tractors, trucks, and gasoline engines), farm drainage, terracing, and other problems.

The *Department of Agronomy* carries on investigations with farm crops, testing and breeding new and pure varieties of cotton, corn, grains, grasses for hay and pasture, clovers, and other agricultural crops. It also conducts experiments in soil fertility and the management of soils for different crops. This work is carried on at the experimental farms, at the main station and the sub-station. A special feature is the work with cotton and corn at the sub-station at Scotts.

The *Department of Animal Husbandry* carries on investigations in feeding, breeding, and management of farm animals, including poultry. Well selected herds of dairy cattle, beef cattle, and hogs are maintained for this purpose. A well equipped and well stocked poultry plant is also maintained. In connection with this department, a model dairy, equipped with improved dairy machinery and laboratories, is conducted for instructional and experimental purposes.

The *Department of Bacteriology* conducts investigations and research relative to the causes and character of animal diseases and means of combating them.

The *Department of Entomology* conducts investigations in life

histories of insects injurious to agriculture and methods of exterminating such insects.

The *Department of Horticulture* is equipped with grounds, machinery and laboratories suitable for conducting experiments in fruit growing and vegetable gardening. Problems of practical importance are worked upon experimentally to aid the grower in his cultural work. Variety study of fruits and vegetables, pollination of the apple, orchard fertilization, pruning, grading and packing experiments are major projects for experiments in this department.

The *Department of Plant Pathology* carries on investigations of plant diseases with reference to their nature, cause of development, and means of combating and eradicating them. The department is equipped with apparatus for its investigations.

The *Department of Veterinary Science* supervises state inspection for contagious diseases of animals and for the eradication of cattle tick. It operates the state serum plant and supplies serum at cost; it investigates also the best means of prevention and control of diseases of animals.

AGRICULTURAL EXTENSION WORK

M. T. PAYNE, *Director*.

R. L. FOSTER, *Editor*.

COUNTY AGENT WORK

J. C. BARNETT, *District Agent*.

H. F. KAPP, *District Agent*. (On leave of absense.)

J. E. MCKELL, *District Agent*.

H. K. THATCHER, *District Agent*.

S. P. WEIGART, *District Agent*.

FORTY-FIVE COUNTY AGENTS.

HOME DEMONSTRATION WORK

MISS CONNIE J. BONSLAGER, *State Home Demonstration Agent*.

MISS ALICE BRIDGES, *District Agent*.

MISS SALLIE CHAMBERLAIN, *District Agent*.

MISS FRANCES COOPWOOD, *District Agent*.

MISS ELLA POSEY, *District Agent*.

MRS. ELIZABETH TEMPLE, *District Agent*.

THIRTY COUNTY HOME DEMONSTRATION AGENTS.

CLUB WORK

W. J. JERNIGAN, *State Boys' and Girls' Club Agent*.

SPECIALISTS

MISS GERTRUDE CONANT, *Cookery.*

B. S. CLAYTON, *Farm Drainage.* (U. S. Dept. of Agr. cooperating.)

H. B. LANSDEN, *Poultry.*

W. H. WOODLEY, *Dairying.*

C. WOOLSEY, *Horticulture.*

A. D. MCNAIR, *Farm Management.* (U. S. Dept. of Agr. cooperating.)

TURNER WRIGHT, *Farm Agent in Marketing.* (U. S. Dept. of Agr. cooperating.)

T. ROY REID, *Assistant in Marketing.* (U. S. Dept. of Agr. cooperating.)

W. H. LANEY, *Assistant in Marketing.*

E. A. HODSON, *Assistant in Marketing.* (U. S. Dept. of Agr. cooperating.)

NEGRO WORKERS

H. C. RAY, *District Agent.*

NINE LOCAL COUNTY AGENTS.

MARY L. RAY, *District Agent.*

TWELVE LOCAL COUNTY AGENTS.

AGRICULTURAL EXTENSION SERVICE

PURPOSE.—The purpose of the Agricultural Extension Service is to complete the three main divisions of the College of Agriculture—resident teaching, research work, and extension work. The object of extension work is to disseminate among the people the most practical information obtainable on all subjects relating to agriculture and home economics, and to encourage the adoption of the practices recommended by farmers. One of its chief functions is to take the results of the State Experiment Station and its branches to the people and thoroughly to disseminate the information thus obtained. Agricultural Extension work deals with the problems of practical and economic production of marketing, and the organization of agriculture as a business and as a life occupation.

SOURCES OF MAINTENANCE. The Division of Agricultural Extension is supported jointly by the College of Agriculture of the University of Arkansas and the United States Department of Agriculture under the provisions of the Smith-Lever Act passed by Congress in June, 1914. In addition to the federal funds appropriated by the College of Agriculture for conducting extension work, and the state funds appropriated as an offset to the federal appropriations, the Department of Agriculture, through the States Relations Service, has allotted to the Division of Extension certain sums to be used in the furtherance of the work.

SCOPE OF WORK. The Division of Agricultural Extension endeavors to reach the maximum number of people throughout the

state, and for that purpose several lines of activities are planned. Among these are the county agent work, the home demonstration agent work, boys' and girls' club work, home economics study clubs, farm meetings, marketing service, farmers' clubs, farm schools, cooking schools, curing and marketing meats, farm management, and personal instruction on the part of specialists in the various fields of agricultural study. The basis of agricultural extension work is actual practical demonstrations, since this has been found through experience to be the most effective method. This applies also to other phases of extension work.

COUNTY AGENTS. The farm demonstration work is conducted through the organization of county agents, who are made responsible for the agricultural interests of the counties to which they are assigned, and whose duty it is to conduct demonstrations in the growing of the various farm crops adapted to the county, in the introduction, care, and management of live stock, in farm management, in marketing, in the organization of community clubs for the promotion of community betterment work, in conducting boys' corn, cotton, peanut and pig clubs, and for the giving of instruction in any other way advisable and effective in their counties.

COUNTY HOME DEMONSTRATION AGENTS. For this work, women trained in home economics and with ability in dealing with household problems and matters affecting the home are employed, according to the plan of the county agent's work. Their duties consist in giving instruction in those things pertaining to the welfare of the home. They organize girls' tomato and garden clubs, teach women and girls to can fruits and vegetables, organize women's home demonstration clubs, and through these organizations teach the best methods pertaining to home work. Their entire work looks to the welfare of the homemakers through **giving instruction in good housekeeping.**

Two-day cooking schools in home economics, where instruction in matters of great importance to the housekeeper is given, are held by specialists in this field. These schools are available to **any community in the state upon request.**

BOYS' AND GIRLS' CLUB. Specialists in club work are provided for the proper supervision of the boys' and girls' club work and to assist the county agents and home demonstration agents in organizing and properly developing this work. This service is designed to teach boys and girls the simplicity of ways of improving the farm and home, to open up to them a brighter view of the future, and to inspire them with the desire to remain on the farm and develop it to its fullest possibilities. **This may be** classed as the initial step in the teaching of agriculture in that it reaches boys and girls between the ages of ten and eighteen, before they have had the opportunity to secure such training in the schools and colleges.

SPECIALISTS. The county agents and home demonstration agents are required to serve the people on all problems, and their training, therefore, must be general. Since this prohibits a high degree of specialization, it is necessary to supply assistance through men trained in more highly specialized fields. This service to the county agents is necessary to enable them to handle some of the more difficult problems of their counties. Specialists, therefore, are supplied in livestock, soils and crops, horticulture and home economics.

FARMERS' MEETINGS. In season it is intended that the extension service through farmers' meetings shall reach every county in the state. Special campaigns along lines of greatest importance are organized and promoted in season. This work is pushed at times when farm work is the lightest.

MARKETING SERVICE. In cooperation with the Office of Markets and Rural Organization, a specialist in marketing is provided to assist farmers in securing markets for their products. This service is deemed to bring the producer and the buyer into touch with each other, but the Division of Extension takes no further part in consummating sales. The marketing service goes further in that it encourages the organization of groups of farmers for the production of various products in carload lots, and gives instruction in the proper grading and packing of fruits and other farm products. During the fall, special assistance is detailed by the Office of Markets for the purpose of grading and classifying cotton for the benefit of farmers. The marketing of any farm product will be included in the activities of this sphere of extension work.

LIVESTOCK INTRODUCTION. Because of certain economic factors not under control, the class of livestock in Arkansas has been decidedly poor. With the control of the distributing factors, the necessity arose for the introduction of pure bred breeding stock. The livestock specialists have turned their attention to that matter and through special organization work in many counties have introduced many carloads of good breeding stock, and through farmers' meetings, the press, and otherwise, have developed a strong sentiment in favor of this work. The boys' pig club work is one of the greater factors in the introduction of pure-bred hogs.

FARM MANAGEMENT. Preliminary surveys of farms in some sections of the state have shown that the profits are far from what they should be. Farm management studies naturally should be one of the foremost in agricultural teaching. Proper investigation of farm management conditions and the teaching of the best methods of farm management are of utmost importance. This work is provided for through the employment of a specialist in farm management.

DRAINAGE AND TERRACING. In cooperation with the United

States Department of Agriculture, a specialist is furnished for the purpose of assisting farmers with their problems of drainage by open ditches, tile range, and similar methods, as well as by the direction, maintenance and handling of terraces to prevent washing of hillsides.

AGRICULTURAL NEWS SERVICE. Agricultural facts must be placed before the people. The co-operation of the press is utilized by supplying to the three hundred twenty-five papers of the state weekly paragraphs on better farming. Special articles dealing with seasonal topics are prepared for the county papers. Special articles for the daily papers of the state are prepared in order that facts may be brought before a large number of people. Further than this, the Division of Extension issues publications from time to time which are available to the people of the state upon application.

SUMMER TERM

The eleventh summer term of the University will open June 20, 1921, and close July 30, 1921.

The University Summer School has grown during recent years until last year more than five hundred students were in attendance, which is a larger number than is found in the average summer school in the United States. The report of the United States Commissioner of Education shows that the cost of attending the session was only slightly more than two-thirds the cost of attending such a summer session in the average school of like grade.

Courses in preparatory and college subjects will be offered by a faculty composed almost wholly either of heads of departments in the various faculties of the University, or of experts of recognized ability from other states. A model school will be conducted for the demonstration of the best methods of teaching in the primary and grammar grades. The University Training High School will be in session and will be in the hands of some of the best superintendents of schools in Arkansas. One unit of entrance credit may be secured by attending the summer school. A limited amount of practice teaching can be done. Several experts in Rural School Methods and Management, Plays and Games, Public School Music, Industrial Work for the Grades, and other such courses have been secured so that the University will offer a number of complete courses especially designed to meet the needs of rural teachers.

Courses completed in the summer term will be credited toward a degree, providing that entrance requirements have been met.

Ten term hours is the maximum that may be earned at any one session. It should be noted that by attending several summer terms a student's college course may be shortened to three or three and a half years.

Courses for freshmen in all of the four colleges of the University (Arts and Sciences, Agriculture, Education or Engineering), will be offered, and graduates of high schools are particularly urged to begin their college work in June instead of September. Courses will be offered this summer in all three phases of Smith-Hughes work in vocational education, namely, in agriculture, home economics, and in industrial arts.

All the facilities of the College of Agriculture and of the state experiment station are open to the Smith-Hughes men in agricultural education, and all the men teaching these courses in the high schools of the state are required to attend by the federal government.

Each year sees an increasing number of courses offered for graduate study. Several students have completed the required work for their Master's degree by summer work.

During Schoolmen's Week, in the latter part of the Summer School, it is the custom of the superintendents and principals from all parts of Arkansas to gather at the University for a study of their own peculiar problems, at which time they are addressed by some of the leading school specialists of the country, brought here by the University.

More detailed information in regard to the courses offered, matriculation and registration, may be had from the Summer Term Bulletin which will be sent upon request. Address requests for information to the Registrar, University of Arkansas, Fayetteville, Arkansas.

SCHOOL OF MEDICINE

HISTORY

The School of Medicine was organized at Little Rock in 1879. In 1911 it was consolidated with the College of Physicians and Surgeons, and by an act of the general assembly became the School of Medicine of the University of Arkansas.

ADMISSION

Admission requires a four-year high school education, and, in addition, two years of college work as set forth below.

HIGH SCHOOL REQUIREMENTS

Four years' work in an accredited high school or its full equiv-

alent, comprising not less than fifteen Carnegie units* in acceptable subjects, including prescribed work as follows:

English ----- 3 units

Algebra ----- 1 unit

Plane Geometry ----- 1 unit

Latin, Greek, French, German

or other foreign language---2 units (both units in the same language).

History ----- 1 unit

Electives ----- 7 units

Total ----- 15 units

Deficiencies in any of the above described high school work may be made up by extra college work in the same subjects.

COLLEGIATE REQUIREMENTS

Two years' work in a recognized college or university, comprising not less than sixty semester hours,† including prescribed subjects, as follows:

Chemistry (See Note A) ----- 12 semester hours‡

Physics (See Note B) ----- 8 " "

Biology (See Note C) ----- 8 " "

English (See Note D) ----- 6 " "

Electives (See Notes E and F) ----- 26 " "

Total ----- 60 " "

NOTE A. CHEMISTRY.—Of the twelve hours at least eight semester hours must be in general inorganic chemistry and at least four semester hours must be laboratory work. The remaining hours may consist of analytical or organic chemistry. After January 1, 1922, organic chemistry will be required.

NOTE B. PHYSICS.—At least two of these eight semester hours must consist of laboratory work. This requirement may be satisfied by six semester hours of college physics, of which at least two must be laboratory work, if preceded by one year (one unit) high school physics.

NOTE C. BIOLOGY.—At least four of the eight semester hours must be laboratory work. This requirement may be satisfied by eight semester hours in either general biology or zoology, or by courses of four semester hours each in zoology and botany; but not by work in botany alone. This requirement may also be satisfied by six semester hours of college biology, including three se-

*A unit in a subject is the credit value of work in that subject for four recitation periods per week for thirty-six weeks. Each recitation period must be at least forty minutes in length.

†A semester hour is the work represented by one class period per week for half of the college year (at least thirty-two weeks). Each laboratory period to be so evaluated must extend over at least two hours.

mester hours of laboratory work, if preceded by a year (one unit) of high school biology, or zoology with laboratory work.

NOTE D. ENGLISH.—The usual introductory college course of six semester hours in English composition and literature or its equivalent is required.

NOTE E. FRENCH, SPANISH, ITALIAN OR GERMAN.—French is preferred, and students are strongly urged to secure a reading knowledge of this language. This will ordinarily require at least two years' work in the high school, followed by at least six semester hours' work in the same language in college, or two years' work (at least twelve semester hours) if the language was not begun in the high school.

NOTE F. ELECTIVES.—As desirable electives, the following subjects are suggested: Additional English; chemistry; zoology; psychology; an additional modern language; economics; college algebra, and trigonometry; sociology; history; political science; logic; Latin; Greek; drawing.

CONDITIONS NOT PERMITTED

No substitutes are allowed for the above prescribed subjects. No entrance conditions are permitted.

Candidates for admission who, in June, 1921, have completed the above requirements with the exception of a few hours of college subjects, should plan to make up their deficiencies by attendance at a summer session during the summer of 1921.

COURSE OF STUDY

The School of Medicine offers a four-year course leading to the degree of *Doctor of Medicine* (M. D.).

The candidate must meet the entrance, residence, and registration requirements; must be twenty-one years of age; and must present satisfactory evidence of good moral character. The candidate must have attended and satisfactorily completed four courses of lectures, no two of which shall have been attended in the same calendar year. Three years of the required work may have been done in some other medical college of recognized standing whose requirements are equivalent to those of this college. The senior year must be done in residence at this college.

The School of Medicine will grant the degree of *Bachelor of Science in Medicine* (B. S.) to students who have complied with the following requirements:

1. The student must have completed two full years of work leading to the bachelor's degree in the University of Arkansas or some other standard college or university, maintaining an entrance requirement of not less than fourteen standard high school units and requiring not less than sixteen hours of recitations and lectures per week in the college course.

2. The student must have included in his two years of pre-

liminary college work on all subjects required for entrance to the first year of the School of Medicine of the University of Arkansas.

3. The student must have completed all of the work in the first two years of the medical course in the School of Medicine of the University of Arkansas.

4. This degree shall not be conferred upon any except persons who are at the present time students in the School of Medicine of the University of Arkansas or upon those who shall enter that college hereafter.

FEES AND EXPENSES

Tuition Fee, per annum.....\$50.00

There are no other fees, but a ten dollar deposit to cover breakage is required. After the necessary deductions, the balance of the deposit is refunded.

Board and lodging, including fuel and lights, may be had at a cost of eight to ten dollars a week, or of thirty-two to forty dollars a month.

BUILDINGS AND EQUIPMENT

The main building, erected in 1890, is a three-story brick structure containing a lecture hall, amphitheatre, museum, dissecting room, and laboratories. A second building, occupied chiefly by laboratories, has been outgrown and the old state capitol is used for laboratories of chemistry, embryology, histology, physiology, pathology, bacteriology, clinical microscopy, surgical pathology, and pharmacology. These laboratories are well equipped with new apparatus and supplies. The space is ample and the rooms are well lighted.

HOSPITAL AND CLINICAL FACILITIES

Logan H. Roots Memorial Hospital. This public city hospital was founded by the late Logan H. Roots. Closed corridors connect the hospital with the college building. The medical and surgical treatment of all cases in this hospital is now entirely controlled by the Medical School.

Pulaski County Hospital. This hospital is situated in the southwestern part of the city and has a capacity of two hundred beds. A feature of the hospital is the cottage treatment of tuberculosis.

The *Arkansas State Hospital for Nervous Diseases* has more than 2,200 patients that are available for teaching purposes. The institution maintains a two-hundred bed hospital for those of its inmates that are acutely ill. Nervous and mental bedside clinics are held weekly throughout the year for the senior class. An adequately equipped necropsy room is maintained in which autopsies are held.

Isaac Folsom Clinic. This clinic was named in honor of the

late Dr. Isaac Folsom, in consideration of his gift of an endowment of \$20,000. This clinic is under the direct and exclusive control of the faculty, and all its material is available for teaching purposes.

State Institutions. All the eleemosynary institutions of the state are situated in Little Rock. These include the School for the Blind, the School for Deaf Mutes, the State Hospital for Nervous Diseases, the Penitentiary, the Reform School, County and City Hospitals, all of which contribute to the available clinical material.

HOSPITAL APPOINTMENTS

The following hospital appointments are made annually: Logan H. Roots Memorial Hospital, two resident physicians; University Hospital, two resident physicians; Pulaski County Hospital, four internes; State Hospital for Nervous Diseases, ten internes. Appointments are made by competitive examinations open to graduates of the School of Medicine.

ANNOUNCEMENT

For further information in regard to the School of Medicine, address the Dean of the School of Medicine, University of Arkansas, Little Rock, Arkansas.

The next annual session opens September 18, 1921, and ends June 8, 1922.

BRANCH NORMAL COLLEGE

HISTORY

The Branch Normal College is situated at Pine Bluff, Arkansas. It was established pursuant to an act of the general assembly of Arkansas, April 27, 1873, and has been in operation since 1875.

Its purpose is to provide industrial education and to train teachers for efficient service in the colored public schools of the state.

BUILDINGS AND EQUIPMENT

The school property consists of twenty acres of land in the western suburbs of Pine Bluff.

The buildings include a two-story school building, containing an assembly hall, well equipped mechanical shops, a dormitory for women, a dormitory for men, a primary training school, and a two-story girls' industrial building.

ADMISSION

Candidates for admission must be at least thirteen years of age, and must pass a satisfactory examination in arithmetic,

English grammar, geography, and United States History, such as is covered in the fifth grade. Those coming from other schools must furnish evidence of satisfactory deportment and class standing.

COURSES OF STUDY

Preparatory Department. In the preparatory department the foundation academic subjects are studied. The work corresponds to that of the sixth, seventh, and eighth grade in the public school.

Normal Department. The purpose of the normal department is to prepare students for teaching. Admission is based upon the completion of the preparatory course. Students who pass the prescribed course of study satisfactorily will be awarded a teacher's certificate.

Industrial Department. Beginning with the second year in the preparatory department, all students are required to pursue certain industrial courses. The industrial work extends through four years, and the completion of the work is attested by a certificate of efficiency.

Young men do shop work in mechanic arts, carpentry, and cabinet making, and have the opportunity to become skilled auto mechanics, blacksmiths, machinists, engineers, or firemen.

Young women are taught plain sewing, cutting and fitting, art needlework, cooking, and millinery.

Agricultural Department. In this department two courses of study are offered, one designed especially for students who are preparing to teach in the public schools, and a second course, for those who wish to specialize in agriculture. The latter course includes work in agronomy, farm economics, and kindred subjects.

FEES AND EXPENSES

Matriculation Fee (paid annually by all students).....	\$5 00
Entrance fee (paid annually by all non-resident students and by all others who do not hold beneficiary appointments)....	5 00
Dormitory fee (including board, fuel, and light, paid by all women students at the beginning of each month).....	12 00
Student activity fee (paid by all students at the beginning of the year)	1 00

Beneficiary students may be appointed by the county judge of each county in the state. Students who receive these appointments pay no entrance fee.

ANNOUNCEMENT

For further information in regard to the Branch Normal College, address the Superintendent, Branch Normal College, Pine Bluff, Arkansas.

DEGREES, DIPLOMAS AND CERTIFICATES

CLASS 1920

DEGREES

MASTER OF ARTS

G. O. Burr

MASTER OF SCIENCE

Festus H. Russell

Merritt O. Alcorn

John Baumgartner

ELECTRICAL ENGINEER

Ernest P. O'Neal

BACHELOR OF ARTS

Joe C. Barrett
Robert E. Bayne
Cleveland Cabler
Mamie Lou Carroll
Elizabeth Barnard Chotard
Aura Clarence Clark
Jesse E. Cox
Pearl Ray Cox
Mary Elizabeth Crockett
Hugh Evans
Ionia Beatrice Furr
Carolyn Gregg
Clyrene Harrison
William Ringgold Harrison

Gertrude Elizabeth Hart
Eugene Guthrie Hassell
Edna L. Hood
Luther Orland Leach
Lillie Mae McBride
Sue B. McDonnell
Grace Newman
Kate Owsley
Vaclav James Ptak
Mary Dale Sellers
Isabelle K. Smith
May Smith
Clyde Vinson
Louise A. Wallace

BACHELOR OF SCIENCE IN EDUCATION

Clare Lee Baskin
George W. Bond
James Weatherby Coleman
Oliver R. A. Cooper
David Clarence Hastings
Laynie W. Harrod
Annie Clara Irby

Lowell Josephine Levy
Lura Knox Massengale
Marguerite McFarlane
Melba Evelyn Mickel
Fanita W. Miller
Zella Williams

BACHELOR OF SCIENCE IN CHEMISTRY

Edwin Hugh Lawson

BACHELOR OF CIVIL ENGINEERING

William Burks Dudley
Horace Hunn Harding
Jere Will Higgs

Stanley M. Newman
Donald Ross Parker
Albert L. Wallace

BACHELOR OF ELECTRICAL ENGINEERING

Lance Dewey Anderson
Paul Dixon Hannah

William Enloe Nelson
Donald McConnell Rice

BACHELOR OF CHEMICAL ENGINEERING

Ernest Brazil

BACHELOR OF MECHANICAL ENGINEERING

Bohart Powell Cowan

Wallace M. Milton

Guy B. Irby

*BACHELOR OF SCIENCE IN AGRICULTURE*Hubert Bynum Hinds
William M. LeeJoseph Fred O'Kelly
Lydle P. Smith*BACHELOR OF SCIENCE IN HOME ECONOMICS*Jessie Anderson Backstrom
Lois BarrettEdith Coker
Patricia Irby

CERTIFICATES

*TEACHER'S CERTIFICATE*Clara Lee Baskin
Edna Macon Bouldin
Bernice Boyd
Agnes Augusta Cain
Georgia Gertrude Carter
Charles M. Campbell
Mamie Lou Carroll
Elizabeth Barnard Chotard
Rachel Flagg Crozier
Elma Deen
Pearl Dutt
Ruth Dyer
Catherine Ellis
Bonnie Lee Farrior
Lillian Brewster Foote
Willis Tolbert HallFlorence Harrington
Mrs. James R. Holcombe
Loretta Holland
Sarah Hon
Zilla Maurine Lovely
Minnie M. McGarry
Lettie Roberts Metcalf
Estelle Middlebrooks
Stella Irene Moore
Ruth Eloise Robbins
Madge Spratt
Odom Farrell Sullivan
Mildred K. Thompson
Blythe Trimm
Carl V. Wilson*TEACHER'S CERTIFICATE IN HOME ECONOMICS*

Jessie Anderson Backstrom

Edith Coker

DIPLOMA IN PIANOFORTE

Annie R. Kinsworthy

Fanita W. Miller

CERTIFICATE IN PIANOFORTE

Gladys Hix

GRADUATION HONORS

Sue B. McDonnell
Clara Lee Baskin
Carolyn GreggLura Knox Massengale
William Burks Dudley
Joseph Fred O'Kelly

CLASS HONORS

Sue B. McDonnell
Clara Lee Baskin
Carolyn Gregg
Lura Knox MassengaleWilliam Burks Dudley
Melba Evelyn Mickel
Lois Barrett

DEPARTMENTAL HONORS

ENGLISH

Sue B. McDonnell (first)
 Carolyn Gregg (second)
 Gertrude Hart (third)

EDUCATION

Clara Baskin (first)

CIVIL ENGINEERING

William Burks Dudley (first)

HOME ECONOMICS

Lois Barrett (first)

ZOOLOGY

Clyrene Harrison (first)
 Melba Evelyn Mickel (second)

ECONOMICS

Sue B. McDonnell (first)

CHEMISTRY

Luther Orland Leach (first)

MATHEMATICS

William Burks Dudley (first)

UNIVERSITY SCHOLARS,

1920-1921

Name	High School
Homer Berry	Carlisle
Robert Cross	Waldron
Joe Cunningham	Clarksville
Price Dickson	Bentonville
Jean Elliott	Lewisville
Myrtle Farmer	Newport
Ted Fisher	Rogers
Eunice Heffelfinger	Texarkana
Pansy Kelley	Eureka Springs
Perry W. Mason	Walnut Ridge
John Moore	Greenwood
Carrie Mowery	Piggott
Allen Norman	Van Buren
Joy Prewett	Helena
Caroline Price	Russellville
Shelley Sanderson	Texarkana
Ethel Jane Turnage	Blytheville
Catherine Winn	Russellville

LIST OF STUDENTS

1920-1921

GRADUATE STUDENTS

Name and Degree	Home
Abbott, Mrs. Mina B., B. S., University of Kentucky.....	Blytheville
Alcorn, Merritt O., B. A., University of Arkansas.....	Wynne
Baumgartner, John, B. A., University of Chicago.....	Brinkley
Burr, George O., B. A., Hendrix College.....	Cowdway
Bright, Vassas, B. S. A., Mississippi A. & M.....	Fountain Hill
Brown, G. S., B. S. A., Mississippi A. & M.....	Goldonna, La.
Conley, George D., B. M. E., University of Arkansas.....	Paris
Henderson, E. Lee, B. S. C., University of Arkansas.....	Ames, Iowa
Hughes, C. A., B. S. A., Mississippi A. & M.....	Kennett, Miss.
Hughes, Lowell M. A., University of Missouri.....	Fayetteville
Hunt, C. M., B. A., University of Arkansas.....	Prescott
Isby, Mrs. Nola M., B. A., University of Arkansas.....	Bearden
Isby, Nola M., B. A., University of Arkansas.....	Bearden
Jackson, Charlotte, B. A., Agnes Scott College.....	Tuscumbia, Ala.
Johnson, Byron, B. S. A., University of Arkansas.....	Waldo
Lucas, H. A., B. S. A., University of Arkansas.....	Fayetteville
Massey, W. B., B. S., Valparaiso, Indiana.....	Warren

Name and Course	Home Address
Mayfield, J. L., B. S. A., Mississippi A. & M.	Sylvarena, Miss.
Mayfield, R. L., B. S. A., Mississippi A. & M.	Sylvarena, Miss.
Mitchell, F. T., B. S. A., Mississippi A. & M.	Hattiesburg, Miss.
Morchhead, Louise, B. A., University of Arkansas	Hot Springs
Nelson, E. H., B. A., University of Arkansas	Ada, Okla.
Reed, M. D., B. S. A., Mississippi A. & M.	Rosebud
Riddling, Little, B. S. A., University of Arkansas	Mena
Rosen, Henry Robert, M. S., University of Wisconsin	Fayetteville
Russell, Festus H., B. A., University of Arkansas	Imboden
Saunders, Newport W., A. B., Pease College	Fayetteville
Sharp, Margaret, B. S., Mississippi College	Jackson, Miss.
Tucker, Frances, B. A., Wellesley College	Little Rock
Tyson, Harvey J., B. S. A., University of Arkansas	Camden
Wilson, Carl V., B. A., University of Arkansas	Fayetteville

UNDERGRADUATE STUDENTS

EXPLANATION OF ABBREVIATIONS

A	College of Arts and Sciences
E	College of Engineering
Ag	College of Agriculture
Ed	College of Education
F	Freshman
So	Sophomore
J	Junior
Sr	Senior
Sp	Special
T	Trade Course
Mu	Music
Pre-Med	Pre-Medical

Name and Course	Home Address
Adams, Quincy Dalton, A-Sr	DeValls Bluff
Adams, Roberta Marietta, A-Sp	Fayetteville
Agee, Owen Frank, So-Pre-Med	Ozark
Albright, Spencer Delancey, Jr., A-J	Fayetteville
Albritton, Louis, E-J	Texarkana
Alcorn, Hale Stuart, A-So	Lake Village
Alcorn, Mary, A-So	Fayetteville
Alcorn, Robert Elmore, A-So	Fayetteville
Alexander, Alma, Ag-F	Jonesboro
Alexander, Imogene, Ed-F	Pine Bluff
Alford, Thomas Elbert, E-J	Hot Springs
Alley, Effie, A-Sr	Little Rock
Allen, Nettie La Delle, Ag-F	Little Rock
Allen, Winifred Switzer, A-Sp	Wichita, Kan.
Allred, Ernest G., E-Sp	Pittsville
Amis, William, A-So	Fordyce
Anderson, Elmer J., E-Sp	Louann
Anderson, Mrs. Elmer J., A-Sp	Camden
Anderson, Homer Lee, A-Sp	Louann
Anderson, Loy Pinckney, A-Sp	Fayetteville
Anderson, Robert Reeves, A-Pre-Med	Jonesboro
Andrews, Wilkins Bostick, A-So	Fayetteville
Angus, Robert Norton, Ag-Sp	Handley, Tex.
Apple, William Julian, A-F	Rogers
Argo, Marion Lee, A-So	Cotton Plant
Armstrong, Milton Earl, E-F	Newport
Askew, Margaret Ellen, Ed-So	Fayetteville
Atkins, Carl Edward, Ag-Sp	Chidester
Atkins, Hubert Wilcox, A-Sp	Little Rock
Atkinson, Mary Alzira, Ed-F	Berryville
Atkinson, Mary Ellen, Ed-So	Pine Bluff

Name and Course	Home Address
Atkinson, Minnie Clare, A-F.....	Berryville
Atkinson, Minnie Grey, Ag-F.....	Pine Bluff
Aslt, Dean Douglas, E-F.....	Donaldson
Baber, Aubrey V., E-F.....	Siloam Springs
Bain, Melvin H., E-Sp.....	Slaton, Tex.
Baker, Dixie Omega, Ed-F.....	Fayetteville
Baker, Frank Tucker, A-Sp.....	Eureka Springs
Bard, Vernice, Ed-F.....	Helena, Okla.
Barnard, Myrtle, A-Mu.....	Gulfport, Miss.
Barrett, Irene Josephine, Ag-F.....	Hugo, Okla.
Bartell, Lawrence, A-F.....	Siloam Springs
Barton, Edith Garrison, Ag-F.....	Fayetteville
Barton, Lela V., A-J.....	Fayetteville
Barton, Lory, E-Sr.....	Fayetteville
Barton, William Bernard, A-F.....	Fort Smith
Barton, George Marion, E-So.....	Berryville
Bates, Melba Mae, Ed-F.....	Waldron
Bates, Margaret Amelia, Ed-J.....	Fayetteville
Batjer, Margaret Quay, Ag-F.....	Rogers
Bauch, William L., Ed.....	Conway
Beasley, Edward C., E-Sp.....	Texarkana
Beasley, George Herschel, A-J.....	Texarkana
Beauchamp, Stonewall J., A-J.....	Little Rock
Bell, Bessie M Laddin, A-So.....	Fayetteville
Bell, G. M., E-Sp.....	Oklona
Bell, Vivian, E-Sp.....	Fayetteville
Bellver, Mary Barbara, Ed-Sp.....	Camden
Bennett, Joe Gordon, Ag-So.....	Paris
Benson, James Benjamin, Ag-F.....	Searcy
Bentley, William Roger, E-Sp.....	Fayette, Ala.
Berry, Homer Lester, A-F.....	Carlisle
Berry, Lois Katherin, Ag-F.....	Fayetteville
Bess, John W., E-Sp.....	Idabel
Bingham, William T., E-Sp.....	Springdale
Bird, Harley Omer, A-Sp.....	Waldron
Bishop, Eugene Clinton, Ag-Sp.....	Barber
Black, Dorothy, A-J.....	Little Rock
Black, John Clinton, E-Sr.....	Berryville
Black, Lois, Ag-F.....	Nowata, Okla.
Black, Olan Hope, Ed-F.....	Wichita
Blackburn, Archibald, E-So.....	Clarkville
Blackman, Gladys Luther, Ed-So.....	Fayetteville
Blaine, Thomas Burnet, Ag-Sp.....	Marvell
Blakeley, Mae Isabel, Ag-J.....	Hardy
Bland, Lucille, A-So.....	DeValls Bluff
Blakes, Aubrey G., A-Sr.....	Hamburg
Blanchard, Virginia Mary, Ag-F.....	Fort Payne
Blount, Elsie Ellenore, Ed-Sr.....	Darlington
Blodgett, George Frank, A-So.....	Jacksonville
Bocquin, Martin Theurer, Ag-So.....	Fort Smith
Boddy, John Young, A-F.....	Fort Smith
Booker, Jack Watson, E-So.....	Fort Smith
Booker, John Robert, E-Sr.....	Handy, Texas
Bossemeyer, James Lee, Ag-So.....	Fayetteville
Bowman, Claude E., E-Sp.....	Newport
Boyce, Helen, Ag-So.....	Pine Bluff
Boyd, B. Degen, E-F.....	Hartford
Boyd, Fred, Ed-F.....	Tyrone
Boyd, Marie, Ed-F.....	Fayetteville
Boykin, E. W., E-Sp.....	Mist
Boyle, Albert Louis, A-So.....	Berryville

Name and Course	Home Address
Bradford, William Hollis, A-Pre-Med.....	Cabot
Bradley, Brooks, A-Sp.....	Little Rock
Brammer, G. C., E-Sp.....	Lawton, Okla.
Branch, Sam Houston, Ed-F.....	Branch
Bransford, John McKinnis, A-Sp.....	Lonoke
Brasher, Beryl Hey, A-F.....	Houston, Tex.
Brashier, Denver Legette, A-So.....	Waldron
Bratton, Mary Diecy, Ag-F.....	Marshall
Breedlove, Ina, Ag-So.....	Bentonville
Brewer, William Myrtle, E-J.....	Fayetteville
Britt, James Eric, E-So.....	Bentonville
Brooks, Charles S., E-Sp.....	Bedias, Tex.
Brown, Alley Gray, A-F.....	Moro
Brown, Harvey Holman, A-So.....	Walnut Grove
Brown, James Lemuel, E-So.....	Little Rock
Brown, Jesse E., E-Sp.....	Ravenden
Brown, Rayburn Morris, E-F.....	Heber Springs
Brown, Virginia, Ed-F.....	Pine Bluff
Bryant, Everett E., E-Sp.....	Fittsburg, Tex.
Bryant, Grace, Ed-F.....	Fayetteville
Buckley, King, E-Sp.....	Sapulpa, Okla.
Buerkle, Emma Martha, A-F.....	Stuttgart
Bundy, Paul C., A-F.....	Bentonville
Burgess Edith Lois, Ed-So.....	Marianna
Burke, Lucy Adeline, Ag-Sp.....	Monette, Mo.
Burke, Zealia, Ag-J.....	Lexington
Burman, Henry Thomas, E-Sp.....	Abilene, Tex.
Burns, Will W., E-Sp.....	Lamisa, Tex.
Burnes, Homer I., E-Sp.....	Van Buren
Cathoun, Zachary Herman, Ag-So.....	Little Rock
Camp, Alonzo D., A-F.....	Patmos
Campbell, Blanche, A-Mu.....	Foreman
Campbell, Christine, A-Mu.....	Foreman
Campbell, Clement, E-Sp.....	Houston, Tex.
Campbell, Lester E., E-Sp.....	Lefflore, Okla.
Campbell, Marceline, A-F.....	Fayetteville
Campbell, Marion Elizabeth, A-So.....	Chicago, Ills.
Campbell, William Errington, E-So.....	Fayetteville
Carl, Beulah, Ed-Sr.....	Gentry
Carnes, Grady Alexander, E-Sp.....	Palmer, Tex.
Carr, Robert W., E-Sp.....	Bentonville
Carruth, Mary Elizabeth, A-So.....	Ursula
Carter, Claudia Heath, A-F.....	Fayetteville
Carter, Mildred Eugenia, Ed-F.....	Helena
Carter, Willard Scott, E-Sp.....	Fayetteville
Chaffin, Perry Milton, A-F.....	Fayetteville
Chambers, Claude L., E-Sp.....	Jacksonville, Texas
Chandler, Florence Clyde, A-So.....	Fayetteville
Cheatham, Andy Reynolds, Ag-Sp.....	Stephens
Cherry, Blanche, A-So.....	Paris
Cherry, Marie, A-F.....	Paris
Christian, Carroll Dodson, E-F.....	Springdale
Church, George Lucian, E-F.....	Little Rock
Ciasnocha, Thomas, E-Sp.....	Buffalo, N. Y.
Clardy, Chester, Ag So.....	Malvern
Clark, Edna, A-So.....	Waldo
Clark, Frank Andrew, A-F.....	Waldo
Clark, Howard Rupert, E-So.....	Springdale
Clark, Jesse F., E-Sp.....	Annona, Tex.
Cobb, Jessie Ray, A-So.....	Fayetteville
Cobb, Verlia Vivian, Ed-F.....	Ashdown

Name and Course	Home Address
Cockrill, Sterling Robertson, A-F.....	Little Rock
Coe, Roy Arthur, Ag-F.....	Fayetteville
Coffey, Opal, Ed-So.....	Fayetteville
Colbert, James Canfield, A-Sr.....	Minden, La.
Cole, Arthur, A-So.....	Bauxite
Coleman, Bessie, A-F.....	Pine Bluff
Coleman, Hazellett Lyell, Ed-So.....	Pine Bluff
Coleman, Marguerite, Ag-So.....	Dermott
Coleman, Samuel Wallace, E-Sp.....	Strong
Collamore, Loftus J., E-Sp.....	Little Rock
Collum, Walter Cecil, Ed-So.....	Alma
Colvert, Osie Harvey, A-So.....	Eagle Mills
Combs, Otto C., A-F.....	Fayetteville
Conley, Kate Elizabeth, Ag-F.....	Paris
Connell, DeBert Wilson, A-Pre-Med.....	Hot Springs
Conner, Edwin B., Ag-F.....	Angusta
Constant, Lillian, Ed-F.....	Van Buren
Cook, Alice Virginia, Ed-F.....	Fayetteville
Cook, Alva Norris, E-F.....	Fayetteville
Cooper, Paul Morris, A-F.....	Blytheville
Cornwell, Rebecca Geraldine, A-F.....	Dardanelle
Couch, Inez Alice, A-So.....	Magnolia
Covington, Vivian, A-Mu.....	Fort Smith
Cowan, Clark Robinson, E-F.....	Rogers
Cowden, Earl Edwin, A-So.....	Horatio
Cowden, Piermont Morgan, A-F.....	Horatio
Cowger, Aubrey Preston, A-F.....	Dayville
Cowling, Kelley William, A-F.....	Wichita Falls, Tex.
Cox, Colyer Bostick, Ag-F.....	Precedent
Cox, Hollace Lawton, E-So.....	Vale
Cox, Lydia, Ed-F.....	Vale
Crabaugh, Alfred Jackson, A-F.....	Bentonville
Crain, Florence, A-Mu.....	Mena
Cravens, Wyatt Lamar, A-F.....	Paris
Cranford, Dennis Denny, A-F.....	Sheridan
Creasy, Leonard S., E-Sp.....	Dow, Okla.
Croom, Mally Lane, Ed-Sp.....	East Smith
Cross, Robert Cecil, E-F.....	Waldron
Crossno, Ernest D., A-So.....	Ozark
Crowell, La Verne, E-So.....	Rogers
Crozier, Mrs. Sue Blake, Ed-Sp.....	Fayetteville
Crum, Thomas Jay, Ag-F.....	Helena
Cretcher, Margaret, Ag-F.....	Springdale
Culp, Ina, A-F.....	Wilmot
Cummings, Robert Paul, Ag-F.....	Springdale
Cunningham, Joe Andrew, E-F.....	Clarksville
Curtis, Harry Burns, E-J.....	Bentonville
Dallas, Bend D., E-Sp.....	Ft. Worth, Tex.
Daniel, Cleo Maxwell, A-F.....	Springdale
Daniels, E. A., E-Sp.....	Teaiah, Okla.
Daniels, Walter Elmer, A-So.....	Little Rock
Darwin, Robert E., E-Sp.....	Harrisburg, Tex.
Davidson, Gene, Ed-Sr.....	East Smith
Davidson, Jack Marie, A-F.....	Mayfield
Davis, Anna Belle, Ed-So.....	Lowell
Davis, Jessie May, Ed-So.....	Lowell
Davis, Leonard Ray, A-So.....	Black Rock
Davis, Lewis Ward, A-Sp.....	Little Rock
Davis, Opal Lillian, Ag-J.....	Houston
Davis, William Garland, A-Pre-Med.....	Clarksville
Dearing, Ray, A-Mu.....	Prairie Grove

Name and Course	Home Address
Dearing, Grace Helen, Ag-F	Prairie Grove
De Arman, Thomas Milton, A-F	Miami, Okla.
Deason, Harriet Edith, A-F	..... Rogers
Decker, Garland P., E-F	Fayetteville
Dempsey, S. E., E-Sp	Russellville
Dever, Olin, Ag-Sp	Fayetteville
Dial, Chester, Ag-Sp	Fort Smith
Dickey, Wilma, A-F	Morrilton
Dickson, Hugh Clint, E-So	Fayetteville
Dickson, Price A., Ag-F	Beaumont
Dill, Sam Loid, E-So	Little Rock
Dixon, Mary, A-Sp	Lincoln
Dixon, Melba Elmira, Ed-So	Marshall
Dobbins, Albert Martin, Ag-Sp	Encke Springs
Doren, Clarence Edward, E-Sp	Tulsa, Okla.
Dowd, Willie J., E-Sp	Prescott
Downing, Norman H., Ag-F	Wichita Falls, Tex.
Drown, Jesse Frank, E-Sp	Cross Roads
Dyer, Walter Sherman, A-F	Fayetteville
Earle, John Baylis, E-So	Fayetteville
Earle, Margaret, A-F	Fayetteville
East, Jack, A-So	Texarkana
Edgar, John J., E-Sp	Bokchito, Okla.
Edler, Charles, E-Sp	New Florence, Mo.
Edwards, Frances, Sen., A-Ma	Lemke
Elliott, Jean, E-F	Leweville
Ellis, Charles Edmund, E-F	Rogers
Ellis, Martha Belle, A-So	Fayetteville
Ellison, Edwin Lester, E-Sp	Houston, Tex.
Ellison, Henry Fred, Ag-Sr	Atkins
Emack, Charles, Ag-F	Little Rock
Evans, John S., Ag-So	Ola
Evans, John Thomas, A-Sp	Fort Smith
Evans, Walter Hill, A-Sp	Fort Smith
Evans, William Clarence, Ed-F	Atkins
Ewart, James Burns, Ed-Sr	Beaumont
Faker, Roger Edward, Ag-So	McClary
Farrar, Noel Lester, A-So	Stigler, Okla.
Farrar, Joseph K., A-Sr	Newport
Farmer, Myrtle, Ag-F	Newport
Felt, F. M., E-F	Aurora
Featherston, Charles, A-F	Beaumont
Felsenthal, Sonnel J., E-F	El Dorado
Fenter, Albert E., A-Sr	Gurdon
Ferguson, Dorcas, A-F	Russellville
Ferguson, James R., E-Sp	Ada, Okla.
Field, Mary Judith, A-Sp	Little Rock
Fietz, Rozella, Ed-F	Fayetteville
Files, Richard M., E-So	Itasca, Tex.
Fincher, Lawrence Guinn, A-So	Waldo
Fisher, Alfred Ted, E-F	Rogers
Fitch, Earl Young, Ag-So	Carlisle
Fitch, J. Sterling, A-F	Hindsville
Fitch, Larkin, A-F	Hindsville
Fletcher, Burrell Alexander, Ag-F	Aurora
Fletcher, John Kirkland, A-So	Montrose
Ford, Merle Esther, Ed-Jr	Newport
Forrester, Charlye Vera, A-Sr	Walton
Fournier, Paul Joseph, E-Sp	Quincy, Okla.
Fox, Edwin, Ag-F	Beaumont
Frasier, Waldo, E-So	Ozark
Freeman, Curry Bryan, A-Sr	Ashdown

Name and Course	Home Address
Harding, William Brewster, A-Pre-Med	Fayetteville
Hardister, Gladys, Ag-F	Reybel
Harkey, Olga John, A-So	Ola
Harper, Harry William, A-F	Stuttgart
Harrell, Holmes, Ag-Sp	Tiller
Harrington, Janette, Ed-Sr	Fayetteville
Harrington, Leroy J., E-So	Fayetteville
Harris, Elmer Ralph, E-So	Piggott
Harris, Fred William, A-So	Cotton Plant
Harris Luetta Margaret, A-Sr	Fayetteville
Harris, Robert P., Jr., A-Sp	Fort Smith
Harris, Shade Murray, E-J	Fayetteville
Harrison, James Parker, A-F	Nashville
Harrison, William Mace, E-So	Muskogee, Okla.
Hart, Robert Paschal, E-Sr	Arkadelphia
Hawn, Mary Agnes, Ed-So	Fayetteville
Haynie, Robert Bracy, A-So	Prescott
Hays, Elizabeth, Ed-F	Rogers
Hays, Grady, A-F	Little Rock
Hays, Hugh Ralph, E-Sr	Fayetteville
Hays, Orren Lee, A-So	Russellville
Hedgepeth, Ann Lunette, Ag-Sp	Little Rock
Heerwagen, Leo Frederick, Ag-So	Fayetteville
Heerwagen, Louis Martin, Ed-F	Fayetteville
Heffelfinger, Eunice Whitter, A-F	Greenland
Hellums, Martha, A-F	Grady
Henbest, Lloyd George, A-So	Fayetteville
Henderson, Ethel, Ed-F	Centerton
Henderson, Rebecca, A-F	Centerton
Hendrey, Waldersee, B., A-J	Bazelow
Hendricks, Sterling Brown, E-J	Fort Smith
Henley, Mildred, Ed-F	Fort Smith
Henry, Lewis Murphy, A-J	Helena
Hensley, Clyde Van, E-F	Marshall
Henson, Louis Emerson, A-J	Springdale
Hernsberger, Carroll Gray, A-F	Londyee
Hicks, Walter Edwin, E-So	Warren
Higgs, Bettie, Ag-F	Ozark
Higgs, Lida, A-J	Ozark
Hill, Martha Jane, Ed-So	Prairie Grove
Hillhouse, Lawrence, A-F	Newport
Hindman, Bernice, Ag-Sp	Hot Springs
Hinds, Everett V., Ag-Sp	Clifty
Hinds, Hazel Stiles, Ag-So	Fayetteville
Hite, Tola Eugenia, Ed-So	Beggs
Hodges, Grayce Edith, Ag-So	Westville, Okla.
Hoech, Charles Bernie, E-F	Bearden
Hoffman, Charles Emmet, A-Sp	Little Rock
Hogan, Julian Claud, E-So	Little Rock
Hogins, Mildred Josephine, Ag-F	Russellville
Holcombe, John E., A-Pre-Med	Marble City, Okla.
Holderby, Richard Henry, Ag-So	Newark
Hollabaugh, Frances E., Ed-F	Marshall
Hollabaugh, Shem Ernest, E-Sr	Marshall
Hollabaugh, Wylodean, Ed-Sp	Marshall
Holland, Beauford Fly, A-F	Pine Bluff
Holland, Loretta Amelia, Ed-Sr	Pocahontas
Holmes, Charles Troy, E-Sp	Richmond
Hollyfield, Clara Ruth, Ag-F	Rogers
Hopkins, Jim Forrest, A-So	Fort Smith
Horn, Robert Jewell, E-So	Bauxite
Horsfall, Frank, Ag-F	College Station

Name and Course	Home Address
Housley, Ernest J., A-F	Hot Springs
Howard, Isaac Wesley, Ed-F	Provo
Hudgins, Helen Masberne, A-J	Fayetteville
Hudgins, Mary D., Ed-F	Hot Springs
Huenefeld, Adelia Clara, A-Mu	Gregory
Huenefeld, Erma Emilie, Ag-J	Gregory
Huggins, L. Gale, E-So	Fort Smith
Hughes, Amy Thomas, Ed-So	Haynes
Hughes, Donald S., E-Sp	Fayetteville
Hughes, Frances, A-Sp	Haynes
Hughes, Lewis Hurley, E-F	Siloam Springs
Hull, William Leland, A-F	Fayetteville
Husky, Lyman Theodore, A-So	Prescott
Hurt, Hurley Gregg, A-J	El Paso, Tex.
Imon, Neil Cunliff, E-J	Pine Bluff
Inabnett, Edgar Lee, A-F	Stamps
Irby, Freeman Buckner, A-So	Newport
Izard, Clyman Edward, A-F	Van Buren
Jackman, George Albert, E-F	Rogers
Jackson, Charlotte May, Ag-F	Rogers
Jackson, George A., Ag-Sp	Monticello
Jackson, George C., A-Sp	Rogers
Jacobs, Royle Wood, E-Sr	Fayetteville
Jamerson, Charles Dewey, A-J	Clarendon
James, Joe Allen, E-So	Stuttgart
Jamison, Edgar, E-F	Gillham
Jamison, Joseph Dibrell, E-Sr	Gillham
Janes, Hazel Thelma, Ed-Sp	Paris
Jean, John Bryan, A-Pre-Med	Wicherville
Jeffery, Vogel Joseph, Ed-F	Fort Smith
Jeter, Winston L., A-F	Jonesboro
Jetton, Juliet Erin, A-Sr	Charleston
Joerden, Russell Howard, E-J	Pine Bluff
Johns, Lloyd, A-F	Paris
Johns, Vestal Gladys, A-So	Paris
Johnson, Allean A., A-Mu	Foreman
Johnson, Eva Stewart, Ed-So	Ashdown
Johnson, Marvin Dickson, Ag-J	Waldo
Johnson, Mary Elinor, Ag-J	Hughill
Johnson, Pat, A-F	Fayetteville
Johnson, Rupert Price, E-F	Fayetteville
Johnson, William Albert, A-So	Lincoln
Johnston, Ray, Ag-Sr	Batesville
Joiner, Anna Christine, A-J	Magalia
Jones, Adine Virginia, Ed-F	Forrest City
Jones, Hazel, Ag-F	Abbott
Jones, Hugh, A-F	Valley Springs
Jones, Ira B., Ag-Sr	Merla
Jones, Jewell E., Ag-F	Abbott
Jones, Margaret, Ed-F	Fayetteville
Jones, Olga, Ed-F	Habberton
Jordan, Florence, Ag-Sp	Eureka Springs
Jordan, Frances Elizabeth, A-F	Prescott
Jordan, Harold Ross, A-Sp	Fayetteville
Jordan, Helen, A-F	Prescott
Jory, Sam, E-Sr	Eureka Springs
Judy, Frieda Grace, Ed-F	Waldron
Karsten, Mae, Ed-F	Fayetteville
Kelley, Pansy, Ag-F	Eureka Springs
Kemp, Jarrell R., A-F	Little Rock
Kemp, Radford James, E-Sp	Sherman, Tex.

Name and Course	Home Address
Kennan, James D., A-So.....	Springdale
Kennard, Mary Elizabeth Eugenia, A-Mu.....	Fayetteville
Kernely, Del. E., Ed-F.....	Waldo
Kerr, Septenas Elmore, A-F.....	Hope
Kerr, Olive May, Ag-F.....	Fayetteville
Kilbourn, Garland Rex, E-So.....	Bentonville
Kilgore, Eloice, Ag-So.....	Fordyce
Killian, Mary Lynn, Ed-F.....	Monticello
Kimbrough, Felix Albert, A-So.....	Dutch Mills
Kinsworthy, Annie, Ed-J.....	Fayetteville
Kinsworthy, Burton Hargrove, A-J.....	Weldon
Kitchens, Margaret Thelma, Ed-F.....	Magnolia
Kizer, Roland Cyrus, E-So.....	Monticello
Knerr, Dorothy Dee, Ed-J.....	Fayetteville
Knoch, Lester H., E-J.....	Fayetteville
Knotts, Harold Ruple, A-F.....	Wichita Falls, Tex.
Krocker, A. J., E-Sp.....	Fairland, Okla.
Kuykendall, J. Ray, E-So.....	Fayetteville
Kuykendall, Roy, E-So.....	Fayetteville
Lamb, Marion, E-F.....	Little Rock
Laser, Maurine, A-F.....	Clarksville
Laser, Minnie, Ed-F.....	Clarksville
Latimer, Farris Newton, A-F.....	Corning
Lawrence, Margaret, Ag-Sp.....	De Soto
Ledgerwood, Violet, A-Sp.....	Paris
Lee, William Cecil, E-F.....	Paris
Leeper, Robert Fulton, E-Sr.....	Benton
Leflar, Robert Allen, A-J.....	Siloam Springs
Leffers, William McKinley, Ag-So.....	Gentry
Lemmor, Robert Waylet, A-So.....	Althamer
Leshe, Clara, A-Sp.....	Ashdown
Lewis, Frances Claire, A-J.....	Fayetteville
Lewis, Geneva, A-J.....	Fayetteville
Lewis, Helen, A-F.....	Fayetteville
Lewi, William Augustus, Ag-Sp.....	Fayetteville
Ligon, Guy C., E-Sp.....	Merkel, Tex.
Lincoln, Benjamin A., Ag-So.....	Van Buren
Lincoln, Bert H., A-So.....	Van Buren
Little, Albert Bailey, A-Sp.....	Texarkana
Little, Marshall Manvil, Ed-F.....	Bauxite
Lively, Ralph E., E-Sp.....	Marmaduke
Lloyd, James Turner, A-F.....	Little Rock
Lovell, Eunice, Ed-F.....	Springdale
Lovell, Lasco Gaines, E-F.....	Springdale
Lovell, Ulysses Andrew, A-Sr.....	Springdale
Lowe, Roy E., E-Sp.....	Greenwood
Lowry, Wallace Edouard, A-F.....	Wichita Falls, Tex.
Lucas, Guy W., A-Pie-Med.....	Fayetteville
Luck, Leckie Halton, Ag-Sp.....	Mineral Springs
Lyday, Edgar Parfrey, Ed-J.....	Camden
Lynn, Joseph William, E-Sp.....	Bentonville
Lyon, William A., A-So.....	Camden
MacDougall, Frances, A-F.....	Forrest City
MacDougall, Mary, A-Sp.....	Forrest City
Machen, Hughes, E-Sr.....	Magnolia
Magat, Max L., E-Sp.....	Little Falls, N. Y.
Magee, Thelma Olive, Ed-F.....	Texarkana
Magness, Guy Norton, A-F.....	Lead Hill
Maguire, Milton Hall, E-F.....	England
Mahaffy, Grace Ula, Ed-F.....	Fayetteville
Mailer, James Imery, A-F.....	Fort Smith
Malone, Mona Gradine, Ed-F.....	Waldron

Name and Course	Home Address
Manning, John Eber, Ed-So	Haynes
Manning, William Henry, E-Sp	Brownwood, Tex.
Marks, Leon Charles, Ag-F	Springdale
Martin, Joseph Elliott, A-Sr	Pine Bluff
Mason, Arthur Dixon, A-So	Fort Smith
Mason, Fagan Bart, E-J	Flippin
Mason, Perry Wilbur, E-F	Collins
Mason, Ruric Coin, E-F	Bentonville
Mason, Thomas Allen, A-J	Bradford
Mathews, Charlie Marvin, E-So	Lake Village
Mathews, Justin, Jr., A-F	Little Rock
Mathews, Ruth Camilla, Ed-So	Magnolia
Maxfield, Margaret Y., A-So	Batesville
Maxwell, Ralph Endicott, E-J	Silam Springs
May, George, E-Sp	El Paso, Tex.
May, Joseph Kelley, A-F	Waldron
McAdams, Marguerite H., Ag-Sp	Fayetteville
McAlister, Ila, Ag-F	Fayetteville
McCaleb, J. Bert, E-Sr	Batesville
McColloch, Carrick Lin, A-F	Lincoln
McConkey, Homer Valerine, A-F	Wichita Falls, Tex.
McConnell, Jamie Pauline, A-Sr	Hot Springs
McCormack, John Handford, E-F	Batesville
McDaniel, Calvin Hartin, E-Sr	Magnolia
McDonald, Louis Collins, E-Sp	Vinita, Okla.
McDowell, Harry Bourne, E-So	Little Rock
McGarry, Minnie Marcille, A-Sr	Little Rock
McGee, Butler Matthew, A-Sp	Handley, Tex.
McGill, Joseph Tate, Ag-Sr	Chilester
McGill, Josephine, Ed-So	Chilester
McGill, Sarah Ed-Sr	Chilester
McGinty, Paul Raymond, E-So	Fort Smith
McHenry Alicea, A-F	El Dorado
McHenry, Estelle, A-Sp	El Dorado
McKenzie, Arthur R., Ed-F	Booneville
McKinnis, Henry Hernat, E-So	Paragould
McKinnis, Gordon Russell, E-Sp	Union, Tex.
McLaughlin, W. E. E-Sp	Hinton, Okla.
McLain, Mary Leona, A-F	Warren
McMullin, Harry Logan, E-So	Marble City, Okla.
McNabb, Margaret, A-So	Fayetteville
McRoy, Dorothy May, Ed-F	Fayetteville
McRoy, Anne Edward, Ed-F	Spring Valley
Mellor, Grace, A-So	El Dorado
Mellon, Lou Lee, E-So	Chelsea, Okla.
Meyer, Cuba Emanuel, A-F	Pine Bluff
Miles, Irving C. C. A-F	Bentonville
Miles, Henry Baldwin, E-So	El Dorado
Miles, Josephine, A-F	Fayetteville
Miller, Amanda Harris, A-Mu	Hot Springs
Miller, Schley, A-Sp	Dardanelle
Miller, Alice Leona, E-F	Little Rock
Mills, Vernon, E-Sp	Stephens
Milton, David Wiley, E-F	Fort Smith
Minnis, Hal Fletcher, E-J	Roe
Mitchamore, C. E., E-Sp	Braham, Tex.
Mitchell, C. D., E-Sp	Houston, Tex.
Mitchell, Susan Dockin, Ed-Sr	Chesapeake
Mitchell, Shelby Harlan, A-Sp	Marathon
Mitchell, Wm. B., E-Sp	Gilmer, Tex.
Morgan, Hugh Price, Ag-J	Fayetteville
Monzingo, Edna, Ed-So	Magnolia

Name and Course	Home Address
Moon, Charles Roy, A-So.....	Nashville
Moore, Delphine, Ed-F.....	Fayetteville
Moore, Frances Christine, A-Mu.....	Stuttgart
Moore, George Fred, E-J.....	Gurdon
Moore, John Davis, A-Prc Med.....	Huntington
Morgan, Fred H., E-F.....	Tupelo
Morris, Truman Nicholas, A-J.....	Mammoth Springs
Morton, Alva G., E-Sp.....	Enid, Okla.
Moses, Herbert, E-Sp.....	Alma
Mowery, Carrie, E-F.....	Piggott
Mullikan, Ella May, A-Sp.....	Grady
Mulhearn, B. C., E-J.....	Fayetteville
Mulrennis, Mary Cecilia, A-So.....	Fayetteville
Murdoch, Fred, A-F.....	Redfield
Murray, G. R., E-Sp.....	El Reno, Okla.
Naill, John Debbert, Ag-Sp.....	Bischoe
Nakdimen, Hiram Spiro, A-F.....	Fort Smith
Neal, Gladys Carroll, A-F.....	Russellville
Neck, Theodore William, E-Sp.....	Miami, Okla.
Nettelship, Wilma, Ed-So.....	Fayetteville
Newell, Wesley Bird, E-Sp.....	Dallas, Tex.
Newham, Charles Clifton, E-F.....	Little Rock
Newton, John Glen, E-Sp.....	St. Clair, Ala.
Newton, Lytle J., E-Sp.....	Jackson, Tex.
Newton, Milledge, A-Sp.....	Fort Smith
Nixon, Otis H., A-F.....	Pine Bluff
Noah, Ralph H., A-F.....	Topeka, Kans.
Norbury, Joe B., A-F.....	Fayetteville
Norman, Allen E., A-F.....	Van Buren
Oakley, Francile Battenberg, A-F.....	Rogers
Oakley, John Ferdinand, Ag-Sp.....	Fayetteville
Oakley, Margaret, Ag-F.....	Fayetteville
O'Bar, Dora, Ed-F.....	Charleston
O'Connor, Earle L., Ag-Sp.....	Fayetteville
O'Kelly, Ruby Edwin, A-So.....	Blue Mountain
O'Leary, William King, A-F.....	Little Rock
Oliver, William L., Ag-Sr.....	Corning
O'Neal, Frank, A-F.....	Pine Bluff
Overton, Garland Bruce, E-F.....	Fayetteville
Overton, Louise Marie, A-F.....	Fayetteville
Owers, Emma Pauline, A-F.....	Helena
Paddock, Charles S., A-F.....	Fayetteville
Paddock, Mary Grace, Ed-So.....	Fayetteville
Palmer, Charles Edwin, A-F.....	Verona, Penn.
Pankhurst, Homer S., E-Sp.....	Lafayette, Tex.
Park, Effie Pauline, Ed-Sr.....	Pocahontas
Park, Effie Pauline, Sd-Sr.....	Pocahontas
Park, Lyndon Elizabeth, A-So.....	Mena
Park, Ora Agnes, Ed-Sr.....	Pocahontas
Parker, Chester P., E-Sr.....	Cherryville
Parker, Harold Robert, A-So.....	Fayetteville
Parks, Dean Wilmot, A-F.....	Rogers
Parks, Lloyd Clarence, E-Sp.....	Winstlow
Parrish, Edwin Doyle, A-So.....	Mena
Paslay, Robert Cecil, A-J.....	Moro
Pasley, Helen, A-F.....	Forrest City
Pate, Adeline, A-So.....	Little Rock
Patrick, Mary Z., A-Mu.....	Stuttgart
Paul, Bryant Berry, E-Sr.....	Fayetteville
Peace, Francis Leon, E-F.....	Harrisburg
Pearce, Odessa, Ag-So.....	Magnolia

Name and Course	Home Address
Pearson, Charles Thomas, A-F.....	Fayetteville
Pearson, Hugh Douglas, E-F.....	Fayetteville
Pearson, Velma, Ed-F.....	Fayetteville
Peebles, Quinton W., E-Sp.....	Fitzhugh
Peel, Sam Lamar, A-Sp.....	Bentonville
Peckington, Philip, Hawks, I. Sp.....	Springfield, Mo.
Perdue, Jack Armer, A-F.....	Pine Bluff
Perdue, Mildred, A-Sp.....	Pine Bluff
Perry, John Waters, E-Sp.....	Rogers
Petross, Lorraine, Ed-F.....	Springdale
Pettigrew, Lucy Ervin, A-So.....	Charleston
Pettit, Ernest Ning, A-Sp.....	Little Rock
Phillips, James, E-Sp.....	Fayetteville
Phillips, Sam, A-F.....	Camden
Phipps, Doyle, A-F.....	Fayetteville
Pickel, Allie D., A-Sp.....	Fayetteville
Pickel, Frank W., A-J.....	Fayetteville
Pinkerton, Doris Anita, A-Sp.....	Fayetteville
Pinkerton, Earle Irene, A-F.....	Russellville
Pitts, Albert, E-Sp.....	Heavener, Okla.
Pless, Lavinia Catherine, Ag-I.....	Dover
Poe, McDonald, A-So.....	Waldron
Poe, Sam Edgar, Ag-F.....	Waldron
Polk, Joe Travis, A-Sr.....	Fayetteville
Polk, Walton, A-F.....	Fayetteville
Porterfield, Roy, Ag-F.....	Earl, Okla.
Powell, Harris L., E-Sp.....	Prescott
Powell, William Lea, Ag-So.....	Little Rock
Prewett, Joy Menetta, A-F.....	Holena
Price, Caroline Virginia, A-F.....	Russellville
Pryor, Vera Jane, Ed-F.....	Morrilton
Pugh, Wilkes, A-F.....	Fayetteville
Purdy, Russell, E-F.....	Forlyce
Purifoy, Beulah Ray, A-So.....	Chadler
Race, Ed, Thomas Floyd, E-F.....	Russellville
Rach, Simon J., I-Sp.....	Oklahoma City, Okla.
Radtke, Ernest, W. O. H. I. Sp.....	Hugo, Okla.
Rambo, Wm. Walter, A Pre-Med.....	Alton
Ramsey, Warren A., E-Sp.....	Widern
Randall, Glenn Orvice, Ag-J.....	Rogers
Randleman, Dollie, Ag-Sr.....	Rector
Rankin, Richard, O. S. T. Ag-I.....	Jonesboro
Raum, Thomas Campbell, E-Sp.....	Marietta, Okla.
Ray, Kaniel J., E-Sp.....	Harrison
Reburn, Eugene Parker, A-Sp.....	Indian, Mo.
Reed, Vera Lanore, A-Sp.....	Fayetteville
Reeser, Gladys Ellen, Ed-F.....	Jacksonville
Reinberger, Mannie J., A-F.....	Pine Bluff
Reiser, Eugene, A. O. T. E-Sp.....	Baron, Okla.
Rice, Alan Walker, E-Sp.....	Fayetteville
Richardson, Christine, Ed-F.....	Walnut Ridge
Richardson, Davis Payne, A-J.....	Fayetteville
Richardson, Elmer Leroy, A-So.....	Hardy
Richardson, Fount, A-J.....	Fayetteville
Richardson, Irene, Ed-So.....	McGehee
Richardson, James Elmer, E-Sp.....	El Reno, Okla.
Rieff, Thelma, A-So.....	Fayetteville
Ripley, Vincent, A-So.....	Fayetteville
Ritchie, John Edgar, A-Sp.....	Texarkana
Robbins, Neal Burton, E-So.....	Hope
Robbins, Rector Allen, E-Sp.....	Telephone, Tex.
Roberts, Bessy M., Ed-F.....	Mena

Name and Course	Home Address
Roberts, Roy, Ag-Sr	Greenwood
Roberts, Theodore, E-Sp	Thackerville, Okla.
Robertson, James Leland, A-Sr	Biggott
Robinson, Robert Clifton, A-J	Cisco, Texas
Rodgers, Carlin L., Ag-F	Gravette
Rodgers, John Henry, Ag-So	Gravette
Rodgers, Lois Virginia, A-Jr	Fayetteville
Ree, French R., A-F	Newark
Ree, Mathias B., E-Sp	Calico Rock
Rogerson, John Biscoe, E-Sr	El Dorado
Root, Duke Martin, Ed-So	Fayetteville
Root, Harold, E-So	Vale
Rorex, Robert Ellul, E-F	Dardanelle
Roverbaum, Carl Augustus, A-So	Little Rock
Rouse, Ernest Grant, E-Sp	Fayetteville
Rowe, Cecil E., E-Sp	Lepanto
Rowe, R. J., A-F	Greenwood
Rown, George Edward, E-Sp	Walnut Grove, Mo.
Ruble, Meagene, Ed-So	Fayetteville
Rucker, Hugh Walter, E-So	Bauxite
Rucker, William Lawton, E-F	Bauxite
Rudolph, Winifred, Ag-F	Fayetteville
Rule, Martha T., A-So	Lonoke
Rushing, Garland Stanley, Ed-So	Chidester
Russell, A. J., A-So	Berryville
Russell, Della Belle, A-So	Fayetteville
Russell, Mary Emily, Ag-So	Pine Bluff
Russell, Rose, Ed-F	Fayetteville
Rutherford, James Edgar, A-J	Malvern
Rutledge, Allen, Ed-F	Fort Smith
Rye, Samuel Harvey, E-Sp	Lamar
Saliba, Fred S., A-F	Blytheville
Saliba, Raphael Albert, A-F	Blytheville
Samuelson, Grace L., A-So	Searcy
Sanderson, Shelley, A-F	Texarkana
Savage, Dorothy, Ed-Sp	Fayetteville
Savage, Edith Corinne, A-Sp	Fayetteville
Savage, Marjorie H., A-Sp	Fayetteville
Savage, Vivie, James, A-Sr	Carlisle
Sawyer, Jeff Whitlow, A-F	Harrisburg
Scarborough, William Freeman, Ag-J	De Queen
Schoonover, William Jacob, Ed-So	Pocahontas
Schweer, Georgia, Ed-F	Hot Springs
Scott, Caroline, Ed-So	Prescott
Scott, Hunter Dwight, Ag-Sp	Prescott
Self, Jewell, A-F	Glenwood
Self, Wm. Dewey, A-F	Glenwood
Sellers, Elizabeth, A-So	Morrilton
Shardy, Denis Lucile, A-Sr	Pine Bluff
Shankle, Katie May, Ag-Sp	Arkadelphia
Sharp, Jacob, A-F	Jonesboro
Sharp, Samuel Miles, E-F	Alma
Shearer, William Francis, A-Pre-Med	Lincoln
Sheeks, Hardin Brooks, A-F	Corning
Shepard, Nathaniel Leonard, E-J	Little Rock
Shinn, William Darrell, Ed-Sr	Harrison
Shirmer, Luther Liber, E-Sp	Jackson, Mo.
Shrader, Charles Warren, E-Sp	Chariton, Iowa
Sims, Grace, Ag-Sp	Little Rock
Skaggs, Gaston Thomas, A-Sp	Fayetteville
Slade, Milton B., Ag-So	El Dorado
Slaughter, Vera, Ag-So	Springdale

LIST OF STUDENTS

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Name and Course	Home Address
Smartt, Nell, Ag-F.....	Bentonville
Smith, Ardis, E-J.....	Little Rock
Smith, Bonn Viola, Ed-F.....	Waldron
Smith, Brice R., E-So.....	Wynne
Smith, Byron T., Ag-Sr.....	Springdale
Smith, Carl William, E-J.....	Fayetteville
Smith, Catherine Mary, A-J.....	Fayetteville
Smith, Clarence T., Ag-So.....	Siloam Springs
Smith, Dewitt McKinley, Ag-So.....	Parkin
Smith, Douglas Omar, Ed-J.....	Waldron
Smith, John Frank, A-Sr.....	Paris
Smith, Ira John, Ed-So.....	Tyro
Smith, Mary Bess, Ed-F.....	Waldron
Smith, Rubie Lee, Ed-So.....	Fayetteville
Smith, Sam Otis, Ag-So.....	Tyro
Spencer, Clara Doreen, Ag-So.....	Van Buren
Spencer, John, E-F.....	Rogers
Spencer, Raymond Chester, E-F.....	Russellville
Spikes, James L., Ed-So.....	Pocahontas
Spikes, Mary Lucile, Ag-J.....	Rogers
Starbird, Levi C., E-Sr.....	Alma
Staton, William P., A-F.....	Wichita Falls, Tex.
Stewart, Harlan C., A-Pre-Med.....	Greenwood
Stinson, Harry C., A-F.....	Dermott
Stinson, Wright X., E-Sp.....	Winfield, Tex.
St. John, Robert Mead, E-F.....	Memphis, Tenn.
Stockburger, Floyd H., Ag-So.....	Siloam Springs
Stone, Edward, A-F.....	Pierce City, Mo.
Stout, Marion Lewis, A-So.....	Hartford
Strange, Ben F., E-Sp.....	Spiro, Okla.
Strickland, Larry, E-F.....	Waldron
Strong, Dwight, Ag-F.....	Paris
Stubblefield, Carlisle Augustus, A-F.....	Cassville, Mo.
Stubblefield, Ralph Errol, Ag-F.....	Cassville, Mo.
Stubblefield, Ware, A-F.....	Cassville, Mo.
Sullivan, Odom Farrell, Ed-Sr.....	Fayetteville
Sullivant, Mary Bob, Ed-J.....	Stephens
Tallman, James, A-F.....	Stuttgart
Tarkenton, Wesley Terry, A-F.....	Cotton Plant
Tarver, Vernon, A-So.....	Star City
Taylor, Bernice Amber, Ed-So.....	Fayetteville
Taylor, Marie, A-Mu.....	Prairie Grove
Taylor, Merrill B., E-F.....	Little Rock
Teeter, Glenn Lewis, Ag-F.....	Pottsville
Terry, Joseph Fleming, E-So.....	Fayetteville
Thain, Florence, Ag-So.....	Pine Bluff
Thayer, Rachel Corilla, A-Sr.....	Houston
Theriseaud, Paul, E-F.....	Bentonville
Thomas, Clyde Unger, E-So.....	Berryville
Thomas, Travis Raye, Ag-F.....	Magalia
Thomason, Dewey Schley, Ag-So.....	Warren
Thomason, Samuel Arrelion, A-So.....	Warren
Thompson, Elizabeth F., Ag-So.....	Fayetteville
Thompson, Jack Ardee, E-J.....	Hogen
Thompson, Lewis Andrew, E-F.....	Little Rock
Thompson, Melvin Kenneth, E-J.....	Springdale
Thompson, Richard Haynes, A-J.....	Little Rock
Thurbergy, Marion Meredith, A-F.....	Fayetteville
Thrasher, Billie Bob, A-F.....	Prescott
Thrasher, Frances Mae, Ed-So.....	Prescott
Thrasher, Marvin J., E-F.....	Piggott
Tiller, Minor, E-Sp.....	Heber Springs

Name and Course	Home Address
Tipton, Lee, A-Sp.....	Charleston
Toalson, Carl L., A-F.....	Corning
Toaz, Mildred Elizabeth, A-So.....	Fayetteville
Todd, James T., E-Sp.....	Hot Springs
Tenick, Louis John, E-Sp.....	Cove
Towell, Eugenia Margaret, Ag-F.....	Hot Springs
Towery, Saul L., E-So.....	Texarkana
Treadway, Alexander Hamilton, E-F.....	Ozark
Trimm, Blythe, A-Sr.....	Little Rock
Trone, Lindsey Bradford, E-F.....	Bentonville
Tuck, Delpha Elizabeth, A-Sp.....	Fayetteville
Tucker, Irma, Ag-F.....	Little Rock
Tucker, William Paul, E-F.....	Harrisburg
Turnage, Ethel Jane, A-F.....	Rosa
Turner, John Leander, Ag-F.....	Cypert
Turner, Wallace B., Ag-So.....	Cypert
Uhl, Edith, Ag-F.....	Fayetteville
Van Arsdale, Verna Lucille, A-F.....	Warren
Van Frank, James Newell, E-J.....	Little Rock
Van Hook, Dorothy Alice, A-Mu.....	El Dorado
Van Ness, Marian, Ed-So.....	Eudora
Vaughn, Sigma Evelyn, Ed-F.....	Fayetteville
Velvin, Cora, Ed-So.....	Lewisville
Verhoef, Lester, A-F.....	Bentonville
Vick, Hoyt Gouldman, E-F.....	Rogers
Vineyard, Lawrence Black, E Sp.....	Helena
Vineyard, Lela, Ed-F.....	Greenwood
Voeste, Vera, Ed-F.....	Prescott
Von Frech, Lowell, E-Sp.....	Winslow
Wade, Warren Benjamin, E-F.....	Rogers
Wakefield, Elmer Glenn, A-Sr.....	Nashville
Wales, Ernest Lafayette, E-J.....	Mammoth Springs
Walker, Gerald J., E-F.....	Dardanelle
Walker, Jacob Wythe, A-F.....	Fayetteville
Walker, James Berry, E-So.....	Dardanelle
Walker, James O., E-Sp.....	Fayetteville
Wallace, Myretta, A-F.....	Harrison
Wallace, George, E-Sp.....	Fayetteville
Walt, Jewell Ross, A-F.....	Kerr
Walton, Homer C., E-So.....	El Dorado
Ward, John, Ag-F.....	Fayetteville
Ware, Max, E-So.....	Pine Bluff
Warfield, Carneal, A-F.....	Readland
Waters, Helen Margery, A-J.....	Fayetteville
Waters, Mildred Mae, Ed-F.....	Van Buren
Watson, Grace Hazeltime, A-F.....	Fayetteville
Webb, Mabel, A-Sr.....	Fayetteville
Webb, Ralph, Ag-J.....	Fayetteville
Wells, Willie Edna, A-So.....	El Dorado
West, William E., A-Sp.....	El Reno, Okla.
White, Hugh H., E-Sp.....	Houston, Tex.
White, L. B. Nell, Ed-F.....	Forrest City
White, Lois, A-F.....	Paris
White, William H., E-Sp.....	Dupont, Tex.
Whiteside, L. B., E-Sp.....	Jumbo, Okla.
Whiteside, Thomas C., A-So.....	Gentry
Whitlow, George S., E-F.....	Hamburg
Wilcox, Dell Cato, E-J.....	Stuttgart
Wilkerson, Glaphyra, A-J.....	Aurora, Mo.
Wilkins, Mabel Ophelia, Ag-F.....	Wichita Falls, Tex.
Wilkinson, Virginia Middleton, Ed-J.....	Fayetteville

LIST OF STUDENTS

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Name and Course	Home Address
Williams, David Clay, A-Sp.....	Pittsfield, Ill.
Willett, Thomas L., E-Sp.....	Conway
Williams, Freda Elsie, Ag. Ed-Mu.....	McCrory
Williams, Hazel Lora, Ed-F.....	Fayetteville
Williams, Long John, E-Sr.....	Booneville
Williams, Lora, Ag-F.....	Fayetteville
Williams, Ray Edwin, A-So.....	Fort Smith
Williams, Taylor Thomas, E-F.....	Jacksonport
Williams, Vernon, E-F.....	Mt. Ida
Williams, Virgil, E-F.....	Mt. Ida
Williams, Walter Henry, A-So.....	Sedalia, Mo.
Willoughby, Virginia, A-So.....	El Dorado
Wilson, Autrey Polson, A-J.....	Prairie Grove
Wilson, C. J., Mac. Ag-J.....	El Dorado
Wilson, Evelyn Lora, Ed-F.....	Russellville
Wilson, Frank, Ed-F, A-J.....	Fayetteville
Wilson, James, Ed-F, Ed-F.....	Lufkin, Tex.
Wilson, Katherine Neill, Ag-So.....	Fayetteville
Wilson, Richard Murphy, A-F.....	Columbus
Winkelman, Ben Hartwell, E-Sr.....	Fayetteville
Winn, Kathryn Lenora, A-F.....	Russellville
Winters, Lois Clarke, Ed-F.....	Traskwood
Wolf, Ruth, Ed-So.....	Fayetteville
Wood, Henry, E-F.....	Bentonville
Wood, Jessie, Ed-F.....	Van Buren
Wood, Nora Lee, Ag-F.....	Arkadelphia
Woodruff, Frances, Ed-F.....	Fayetteville
Woodson, Juanita, Ed-F.....	Hartford
Woodward, Farris Savoy, A-J.....	Ozark
Wood, Orville, Ed-F, Ed-F.....	Fort Smith
Worsham, Charles C., E-Sp.....	Bollinger, Tex.
Wray, Orla, Ed-F, Ed-F.....	Conway
Wright, Harry McDonald, E-J.....	Little Rock
Wright, Robert Ross, A-F.....	Garland
Yates, David L., Ed-F, A-Pr-Med.....	Willford
Yoes, Oran Campbell, A-F.....	Van Buren
Youmans, Catherine, A-So.....	Fort Smith
Zachry, Neil S., Ed-So.....	Magnolia
Zinn, Grover A., E-So.....	Helema, Okla.
	El Dorado

SUMMER SESSION, 1920

*Graduate Students

*Albott, Mrs. Mira M.	Blytheville	Barnett, Irene	Hugo, Okla.
Adcock, Letha Lucile	Hiwasse	Barnes, Mattie	Saline, La.
Albright, Spencer D.	Fayetteville	Barnes, Elizabeth	Jonesboro
Alcorn, Merritt Oakley	Rogers	Barnes, Joseph	Jonesboro
Alkaber, Albia	Jonesboro	Barnett, Lucy	Fayetteville
Anderson, Elmer J.	Louann	Bates, Margaret	Fayetteville
Anderson, John C.	Springdale	Baumgartner, Mrs. John	Brinkley
Armstrong, D. G.	Junction City	Baylor, Esther Elizabeth	Hiwasse
Armstrong, Mrs. D. G.	Junction City	Beall, Burn	Fayetteville
Askew, Margaret	Fayetteville	*Barnes, John	Brinkley
Atkinson, Mary A.	Berryville	Beck, George	Oklona
Atkinson, Mrs. C. P.	Pine Bluff	Black, Ella Grace	Fayetteville
Atkinson, Mary E.	Pine Bluff	Blackburn, Archie	Clarksville
Baggot, Della	Brinkley	*Blaine, Thomas B.	Marvell
Bardeen, Jean	Fayetteville	Blair, Beniah Nancy	Fort Smith
Barham, Calvin	Prescott	Blaylock, Garland D.	Alma

- Blevins, Eloise Dardanelle
 Blodgett, George Frank Jacksonville
 Boggan, Mrs. G. S. Kingston
 • Boggan, George Samuel Goldonna, La.
 Bolles, Sarah Jane Kansas City, Mo.
 Bouldin, Edna Macon Mineral Springs
 Boyd, Mrs. Anna T. Gallup, N. M.
 Boyd, Bernice Fayetteville
 Boyd, Macie Fayetteville
 Boykin, Erastus Warren Mist
 Braden, Audra Clair Russellville
 Braidwood, Lois Fort Smith
 Brammer, Greely C. Lawton, Okla.
 Braswell, Margaret Fort Smith
 Brasher, Beryl H. Houston, Texas
 Brazil, Edna Earle Cerro Gordo
 Brennen, Robert Alvin, Texas
 • Brewer, William Myrtle Fayetteville
 • Bright, Vassar Sullivan Fountain Hill
 Brown, Lenore Walnut Grove
 Brown, Mazillah Walnut Grove
 Brunskog, Anna I. Bentonville
 Buckley, King Sapulpa, Okla.
 Bunch, Joel E. Kingston
 Burgess, Edith Marianna
 Burke, Zealia Lexington
 Burkit, Lindley R. Dermott
 Burman, Henry Thompson Abilene, Texas
 Burrows, Mamie Gertrude Cordova, Tenn.
 Byler, Essie Mae Kensett
 Byrd, Lura Louise Fayetteville
 Byrd, Mrs. Sam Fayetteville
 Byrd, Sam Fayetteville
 Cain, Agnes Dardanelle
 Calhoun, Carrie Christine Crossett
 Campbell, Charles Milton Russellville
 Campbell, Clement S. Houston, Tex.
 Cannon, Belle Pryor, Okla.
 Carter, Claudia Fayetteville
 Carter, Gertrude Georgia Helena
 Caudle, Jewell Mary Fayetteville
 Cavanaugh, Dorothy Mary Crystal Falls, Mich.
 Cavanaugh, Marian Ann Crystal Falls, Mich.
 Chandler, Florence Clyde Fayetteville
 Chappell, Lillian Julia Springdale
 Chave, Theodore Taylor Waukesha, Wis.
 Cheatham, Andy Reynolds Stephens
 Childress, Sidney Arthur Austin
 Childs, Ruby Deans Banks
 Ciasnochka, Thomas Buffalo, N. Y.
 Clark, Alverne Mae Van Buren
 Clark, Edna Waldo
 Clark, Lina Pearl Goshen
 Coffey, Opal Fayetteville
 Coleman, Mildred Marguerite Dermott
 Coleman, Samuel W. Strong
 Colvert, Clyde Cornelius Eagle Mills
 Compton, Agnes Batesville
 Compton, Lillian Eleanor Rogers
 Conner, Mildred Fayetteville
 Conte, Lelia M. Hot Springs
 Cooke, Martha Johnston Paris, Tex.
 Cooper, Mary Rebecca Shamrock, La.
 Cooper, Oliver R. A. Bigelow
 Cordell, Alice El Dorado
 Cowart, Gladys Alma
 Cox, Robert Benjamin Prairie Grove
 Crabtree, C. L. Arcadia, Okla.
 Croom, Mrs. Blanche Fort Smith
 Croom, Mally Lane Fort Smith
 Cross, Mary Elizabeth Pine Bluff
 Crozier, Rachel Flagg Fayetteville
 Culver, Ethelwyn May Fayetteville
 Cunningham, Sadie Catherine Bentonville
 Curlin, Bertha Virginia Marion
 Curlin, Mrs. James Howard Marion
 Daniels, Elmer Austin Teawah, Okla.
 Davis, Amma Belle Lowell
 Davis, Carl Gay Fayetteville
 Davis, Flo Maxine Fayetteville
 Davis, Nicie Sue Shongalee, La.
 Dawson, Florence Elizabeth Arkadelphia
 Dawson, Joe Wheeler Prescott
 Deen, Margie Fayetteville
 De Arman, Thomas Milton Miami, Okla.
 Deaton, Homer Cleveland Jacksonville, Texas
 Dever, Olin Edward Fayetteville
 Decker, Klerchia L. Fayetteville
 Delozier, Ollie Geneva Elm Springs
 Dickey, Edna Mathews Monticello
 Dickinson, Juanita Bentonville
 Dobbs, Mamie Belle Springdale
 Dolen, Zelma Ethel Wilson
 Dotson, Ethel Fayetteville
 Dotson, Hazel Marie Fayetteville
 Dotson, Katie Ella Fayetteville
 Douglas, Martha M. Cotton Plant
 Drown, Jessie Frank Cross Roads
 Eads, Cecil May McCrory
 Eaton, Louie Norwood Faith
 Edens, John J. Bokchito, Okla.
 Eisenhart, Jack Bond Tulsa, Okla.
 Ellis, Mrs. Corina Raidt Fayetteville
 Ellis, James F. Fayetteville
 Ellison, Edwin L. Houston, Texas
 Emerson, Odessa Maurice Rogers
 Emery, Annie Belle Dallas, Tex.
 England, Addye L. Forrest City

England, Pauline	Neosho, Mo.	*Henderson, Everett Lee	Rogers
Euper, Lena Adele	Fort Smith	Henderson, Nannie Ethel	Huntsville
Ewart, Elsie Ardelia	West Helena	Hendricks, Mary Grace	Waldo
Ewart, James Birns	Booneville	Henry, Mabel Lola	Fayetteville
Faubus, Ellis Jewell	Aurora	Henry, Rector O.	Gilham
Ferguson, Margaret	Vinton, La.	Hicks, Olive Pansy	Greenwood
Fietz, Rozella Mary	Fayetteville	Hill, Earl Alexander	Coyle, Okla.
Files, Mabel Clair	Fayetteville	Hilton, L. L.	Siloam Springs
Files, Richard M.	Itasca, Texas	Hinton, Mina Louise	Hope
Fincher, Lawrence Guinn	Waldo	Hipolite, Jennie Naill	De Valls Bluff
Fisher, Virginia Belle	Texarkana	Hirst, Claude Marvin	Prescott
Flanders, Lillian Jane	Lake Charles, La.	Holcombe, Lulu Willie	Muskogee, Okla.
Floyd, Lenna	Bentonville	Holloman, Grace	Hazen
Floyd, Mary Frank	Bentonville	Holloway, Keith Leming	Conway
Foot, Clyde Henry	Lincoln	Holmes, Charles Troy	Richmond
Foot, Jessie L.	Amarillo, Texas	Hon, Sarah	Hon
Ford, Merle Estes	Newport	Hooker, Howard	Hot Springs
Fore, Earl	Emmet	Hoppins, Elmer E.	Green Forrest
Francis, Elizabeth	Okmulgee, Okla.	Horne, Beulah Virginia	Springdale
Francis, Lemuel Alfred	Dalark	Howell, Nettie Eleanor	Van Buren
Froneberger, Fred E.	Misso, Okla.	Huffman, Johnnie Blanche	Springdale
Frye, Dorcas I.	Rosboro	*Hughes, Claude Allen	Kossuth, Miss.
Frye, Mrs. William H.	Rosboro	Humphreys, Byron	Unalke, Texas
Fulcher, Joseph	Ola	*Irby, Nellie Cole	Bearden
Gaines, Elisha Price	Dibboll, Texas	*Irby, Nolen Meaders	Bearden
Gaines, Mary A.	Dibboll, Texas	Irvin, Mary Angeline	Siloam Springs
Garrett, Beatrice Senith	Van Buren	Jackson, Evelyn Mary	Cane Hill
Garrett, Florence Eugenia	Van Buren	Jackson, Jewell Mae	Springdale
Garrett, Ethel Mae	Pine Tree	James, Bertha May	Bowie, Texas
Garrison, Daniel G.	Saint Joe	*Johnson, Byron E.	Waldo
George, Mary Ella	Dallas, Texas	Johnson, Eva Stuart	Ashdown
Gibson, John Henry	Prescott	Johnson, Grace Anestine	Kingston
Gill, Marie Vivian	Fayetteville	Johnson, Maggie Myrtle	Cotton Plant
Gillespie, Mary Louise	Fayetteville	Johnson, Marvin Dickson	Waldo
Gipson, Floyd McKinley	Ratcliff	Jones, Ira Burton	Mena
Gipson, Exie Esther	Ratcliff	Jones, John Floyd	Cantry
Givens, Harrison C., Jr.	Fayetteville	Jones, Margaret	Fayetteville
Gladden, Flora Eugenia	Warren	Jordan, Florence Marie	Eureka Springs
Goodlett, Joseph Philip	Georgetown, Texas	Keith, Raymond	Fayetteville
Gray, Mary Jane	Fayetteville	Kelleam, Dorothy	Fort Smith
Gregson, Dorothy	Fayetteville	Kelton, Fannie L.	Fayetteville
Griffith, Deane	Eureka Springs	Kennan, Clara Bernice	Rogers
Hairston, Mrs. Maude	Argenta	Kennedy, Harvey William	Waldo
Hale, Alfred Clay	Athena	Kent, Septemus Elmore	Hope
Hall, William F.	Camden	Kerley, Saul	Pocahontas
Hanson, Carl J.	Hamburg	Kimbrough, Felix Albert	Dutch Mills
Hargrove, Anna Andrew	Parloma	King, Hallie	Springdale
Harp, Pearl	West Fork	Kinsworthy, Annie	Fayetteville
Harrington, Florence	Fayetteville	Kozeny, Bessie Frances	Chicago, Ill.
Harris, Margaret	Fayetteville	Kroenke, Alvin Jessie	Fairland, Okla.
Harris, Oline Vivian	Forrest City	Kuhnert, Ruth E.	Springdale
Harrison, Louella	Prairie Grove	Kuykendall, Ella Addie	Conway
*Harrod, Laynie W.	Vilonia	Ladd, Virginia Maud	Fayetteville
Head, Mary Norma	Texarkana	Lane, Pearl Lillian	Van Buren
Hedrick, G. Everette	Fayetteville		
Hedrick, Margaret Gage	Fayetteville		
Henderson, DeWitt Talmadge	Lake Village		
Henderson, Edna H.	Huntsville, Texas		

- Lane, Sylvia Jewell Springdale
 Leach, Luther Orland Scranton
 Leming, Howell E. Danville
 Leonard, Kathlyn Leah Fayetteville
 Letbetter, Helen Corinne
 Lewis, Dovie Leona Hot Springs
 Lewis, Fay James Fayetteville
 Lewis, Rosa Pinckney Springdale
 Lewis, Zaida Shaffner Dallas, Tex.
 Liles, Georgia Celeste Marianna
 Lincoln, Benjamin A. Princeton, Ind.
 Linder, John Van Buren
 Littlejohn, Jeanette Little Rock
 Locke, James Thomas Berryville
 Logan, Ernestine Lenoir Rogers
 Lovell, Clydes Andrew Little Rock
 Lovely, Zilla Springdale
 Lowry, Bernice Marie Kansas City, Mo.
 Lucas, Henry A. Eureka Springs
 Luck, Mildred Fayetteville
 Lundy, Clara Altus
 Madole, Beryl Frank Vinton, La.
 Mann, Martha Gertrude Danville
 Manning, John Eber Pine Grove
 Marsh, Donnie Louise Haynes
 Massie, Lillian Emily Okolona
 Matthews, Bernice Stallings Fayetteville
 Matthews, Ruth Camille Atkins
 Maxwell, Ida Elizabeth Magnolia
 Mayfield, James Lemuel Monticello
 Mayfield, Hattie Watkins Sylvarena, Miss.
 Mayfield, Robert Lester Pine Bluff
 Mayes, Ethel Parker Sylvarena, Miss.
 McAdams, Claude Fayetteville
 McBee, Beula A. Muskogee, Okla.
 McCain, John Erwin Lead Hill
 McCain, John Erwin Burdette
 McCaleb, Jean Batesville
 McCall, M. L. Eureka Springs
 McCaul, Hettie Bee N. Little Rock
 McFarlane, Marguerite Greenwood
 McGill, Josephine Chidester
 McGaugh, Thomas Hubert Emmet
 McLaughlin, William F. Hinton, Okla.
 McLeod, Kathleen Portia
 McLeod, Walter Edwin Portia
 McNabb, Helen Lucile Portia
 Means, Annie Edward Fayetteville
 Meeker, Etna Matilda Spring Valley
 Melton, Mary Leona Decatur
 Milligan, Margaret Lucile Hazen
 Misenheimer, Vera Fayetteville
 Mitchell, Clarence David Clarksville
 Mitchell, Fred T. Houston, Texas
 Mitchell, Sextus Dunkin Chismville
 Mitchell, Shelby Hardin Morrilton
 Mitchell, William Bryan Gilmer, Texas
 Montcalm, Simeon Paul Earle
 Montgomery, Emma Bryan, Texas
 Moore, Mrs. Florence Lincoln
 Moore, George Fred Gurdon
 Moore, Martha Hearst Brighton, Tenn.
 Moore, Ida Eleanor Dallas, Texas
 Moore, Nannie May Fayetteville
 Moore, Stella Irene Morrilton
 Morehead, Marie Louise Hot Springs
 Morgan, Mildred Louise Fayetteville
 Morrison, Mary Helene Fort Smith
 Morton, Alva G. Enid, Okla.
 Mott, Albert Sarcoxie, Mo.
 Mott, Lilla Ann Sarcoxie, Mo.
 Mowery, Carrie Ethel Piggott
 Munson, Ruth Booth Siloam Springs
 Murphey, Mrs. P. E. Junction City
 Murphey, Leo Junction City
 Murray, Glenn Robert El Reno, Okla.
 Murta, Irene Fort Smith
 Newton, John Glenn Slocumb, Ala.
 Newton, Robert Lee Warren
 Norfleet, Griffith Rutherford Paris
 O'Connor, Earle L. Fayetteville
 Oliver, James William Eureka Springs
 O'Neal, Mrs. Eva Humphrev Hot Springs
 Pace, Gunilla War Eagle
 Pace, Ora Andrew Rogers
 Park, Effie Pauline Pocahontas
 Park, Ora Agnes Pocahontas
 Parker, Mrs. Cecil Vivian Hone
 Parker, Mary Lelia Fort Smith
 Patton, Grace Haller Bemis, Tenn.
 Patton, Lillian Gladys Bemis, Tenn.
 Perdue, Gordon Alexander Pine Bluff
 Petross, Lorraine Springdale
 Pharr, Naomi Yolande Carlisle
 Philbeck, Mrs. R. E. Pine Bluff
 Phillips, Vera Mary Prescott
 Pickel, Allie D. Fayetteville
 Pickens, Obi C. Portia
 Pickens, Thelma Batesville
 Pilihowski, Joseph Thomas Parks
 Pirroni, Lenore Fort Smith
 Pool, Geraldine Batesville
 Porter, Jewell Willie Prairie Grove
 Porter, Lena Elsa Prairie Grove
 Powell, Lila Wyman
 Price, Alice Myrtle Avoca
 Pryor, Vera Jane Morrilton
 Ptak, Vaclav James Fayetteville

- Putman, Reding Fayetteville
 Pyle, Golda Eudora Ratcliff
 Raidt, Simon J. Oklahoma City, Okla.
 Rambo, William Waldo Alston
 Ramsey, Laura Natchez, Miss.
 Raum, Thomas Campbell Marietta, Okla.
 Rawlings, Emily Houston, Texas
 Reed, Bessie Rena Carlisle
 Reed, Lydia J. Springdale
 • Reed, Milton Daily Rosebud
 Rice, Ethel Anderson Bentonville
 Rich, Norville Joshua Handley, Texas
 Richards, Elizabeth Mabel Greenwood
 Richmond, Ila Bay Atkins
 Riddle, Joe Bentonville
 • Riddling, Little Mena
 Rives, Mary Weston Marianna
 Roark, Sallie Elizabeth Van Buren
 Roberts, Mrs. John Calvin Forrest City
 Robinson, Florence Edith Rogers
 Rodger, George W. Picher, Okla.
 Rogers, John H. Gravette
 Roe, Madison B. Calico Rock
 Romans, Bess Pauline Wolf Checotah, Okla.
 Rosenbaum, Carl Augustus Little Rock
 Rucker, Annabel Hugo, Okla.
 Sanders, Bertie Gertrude Forrest City
 Sanders, Harmon C. Fort Worth, Texas
 Sanders, Mrs. H. C. Fort Worth, Texas
 Sanderson, Lois Texarkana
 • Sanford, Newport Washington Peniel, Texas
 Scarlett, William Pratt Russellville
 Schaer, Kathleen Candler Hot Springs
 Schrader, Johnnie Collierville, Tenn.
 Scott, Cecil Ostine England
 Scott, Helen Marguerite Jonesboro
 Selig, Blanche Alexia Stuttgart
 Sellers, Katherine Elizabeth Morrilton
 Seymour, Oliver Jesse Doniphan, Mo.
 • Sharp, Margaret Webb Jackson, Miss.
 Sharpley, Joseph Harold Houston, Texas
 Sheeks, Harden Brooks Corning
 Sherman, Henry Emmett Marvell
 Sherman, Henry Emmett, Jr., Marvell
 Sherman, Mrs. Henry Emmett Marvell
 Shinn, William Darrell Harrison
 Shipley, Elizabeth Fayetteville
 Shirmer, Luther Liber Jackson, Mo.
 Shoup, Anna Belle De Valls Bluff
 Shrader, Carles Warren Cache, Okla.
 Shults, Doris Elizabeth Brinkley
 Simmons, Alice Jannie England
 Simmons, Erma Irbama
 Sims, Kate Faith
 Smith, Abraham Joseph Fayetteville
 Smith, Byron T. Springdale
 Smith, Catherine Mary Fayetteville
 Smith, Charles E. Morgfield, Ky.
 Smith, Elizabeth Jane Emporia, Kan.
 Smith, Hobert Quinton Green Forrest
 Smith, James Moses McGehee
 Smith, Lillian K. Clinton, La.
 Smith, Mack Fayetteville
 Smith, Mary Emma Fayetteville
 Smith, May Fayetteville
 Smith, Nathan B. Guion
 Smith, Robert E. Lee Heber Springs
 Smith, Rubie Lee Fayetteville
 Spikes, Lillian Vera Rogers
 Spikes, Mary Lucille Rogers
 Spradlin, Ruby Bryan Augusta
 Spyres, Pearl May Fayetteville
 Stephenson, Ola Diza Okemah, Okla.
 Stevens, Mrs. Otis Forrest City
 Stevenson, Ernest Edward Pottsville
 Stinson, Wright X. Mt. Vernon, Texas
 Stockburger, Iva J. Fayetteville
 Stout, Louise Emily Sulphur Springs
 Stubblefield, Garland A. Cassville, Mo.
 Stubblefield, Ware Cassville, Mo.
 Styron, Mary Monticello
 Suber, Julia Fall Dermott
 Sugg, Alfred Roscoe Bellville
 Sullards, Ralph Alexander DeWitt
 Sullivan, Odom Farrell Fayetteville
 Tanner, Lola Bernice Maysville
 Taylor, Bernice Amber Fayetteville
 Taylor, Grace Gearlden Fayetteville
 Taylor, Leslie G. Weimar, Texas
 Thornton, Lalla Rookh Camden
 Thrasher, Marvin J. Piggott
 Thurber, Earl Chapman Van Buren
 Tibbass, Paul Brandon Fayetteville
 Tiller, Minor Heber Springs
 Torry, Harry Brinkley
 Towery, Saul Edmond Texarkana
 Trimble, Otis Carroll Osage
 Trimm, Blythe Little Rock
 Trotter, Charles Roscoe Ulm

*Tyson, Harvey Jewel	Camden	White, Hugh Hayes	Houston, Tex.
Verfurth, Gertrude	Fort Smith	White, Monta	Clarksville
Via, Thomas Ira	Blytheville	Whiteside, Lighton B.	Jumbo, Okla.
Vickers, Cora Nell	Fayetteville	Whitty, Walter Irwine	Fayetteville
Vickers, Helena Aurelia	Fayetteville	Wilkinson, Myrtle Aline	Stamps
		Williams, Hattie Elizabeth	Fayetteville
Wakefield, Elmer Glenn	Nashville	Willis, Charles Thomas	McCrory
Walker, James Oval	Gravelly	Wilson, Beulah Mabel	Summers
Walkup, Robert Montgomery	Dardanelle	Wilson, Frances Lucile	Fayetteville
Wallace, William Pet	Jonesboro	Wilson, Karl Frederick	Gurdon
Walsh, Lou Bert	Pine Grove	Wilson, Katherine Neill	Fayetteville
Walsh, Virginia	Pine Grove	Wilson, Myrtle Hill	Columbus
Walton, Mrs. Lucy Yearwood	Clarksville	Winkleman, Charlie Dar	Fayetteville
Warren, Mildred Rutherford	Fayetteville	Winn, Stella	Winslow
		Wolf, George David	Fayetteville
Waters, Mildred May	Van Buren	Wolf, Ruth	Fayetteville
Webb, Mabel	Fayetteville	Woodruff, Frances Aurora	Fayetteville
Webb, Ray	Fayetteville	Woodson, Juanita Delph	Hartford
Weidner, Bertie Viola	Stuttgart	Woolf, Cora E.	Houston
Weldon, Elizabeth M.	Fort Smith	Wright, Margaret Amy	Hot Springs
Wellborn, Mrs. Carrie	Barham	Wright, Juanita C.	Hugo, Okla.
	Lewisville	Wright, Thomas A.	Dardanelle
Wells, Lydia Adelina	Maysville	Wyman, Marjorie Lucille	Trout, La.
Wheeler, Mrs. Afton	Kingston		Springdale
Wheeler, Afton	Kingston	Yeargen, Gladys Viola	Fort Smith
Wheeler, Anna Jeanette	North Little Rock	Youmand, Catherine Rebecca	Springdale
White, Mrs. Edgar J.	Marion		

UNIVERSITY HIGH SCHOOL

1920-1921

Name	City	County	State
Adams, Ward H.	Springdale	Washington	Arkansas
Ainesworth, Merrill	Wesson	Union	Arkansas
Alcorn, Janey	Fayetteville	Washington	Arkansas
Anderson, Elmer J.	Camden	Union	Arkansas
Anderson, Mrs. Elmer J.	Fayetteville	Washington	Arkansas
Anderson, Geneva	Dilworth	Kay	Oklahoma
Arnett, Bessie	Fayetteville	Washington	Arkansas
Askew, Bettie	Fayetteville	Washington	Arkansas
Balme, Rose	Fayetteville	Washington	Arkansas
Bandeen, Florence	Fayetteville	Washington	Arkansas
Bell, Mattie	Elm Springs	Benton	Arkansas
Blackmon, Jake	Marianna	Lee	Arkansas
Bartlett, Phillip	Fayetteville	Washington	Arkansas
Blanshard, Ruth	Fayetteville	Washington	Arkansas
Boyd, Audrey	Fayetteville	Washington	Arkansas
Boyd, Mary	Fayetteville	Washington	Arkansas
Bulloch, Nolen	Kingston	Benton	Arkansas
Bunch, Ernest	Fayetteville	Madison	Arkansas
Burnip, Constance	Fayetteville	Washington	Arkansas
Cady, Ruth	Fayetteville	Washington	Arkansas
Cannon, Ruth	Johnson	Washington	Arkansas
Cardwell, Fanny	Fayetteville	Washington	Arkansas
Cassat, Herald	Fayetteville	Washington	Arkansas
Chapman, Jim	Hagler	Washington	Arkansas
Cooper, Earl	Bentonville	Arkansas	Arkansas

Name	City	County	State
Curtis, Pansy	Fayetteville	Washington	Arkansas
Dameron, Clifton	Booneville	Logan	Arkansas
Davis, Leslie	Stephens	Ouichita	Arkansas
Dever, Zetta	Fayetteville	Washington	Arkansas
Drake, Dorris	Fayetteville	Washington	Arkansas
Earle, Fount	Fayetteville	Washington	Arkansas
Ellis, David Y.	Fayetteville	Washington	Arkansas
Ellis, Edward	Fayetteville	Washington	Arkansas
Eleanor, Arthur	Fayetteville	Washington	Arkansas
Farmer, Rasha	Aurora	Madison	Arkansas
Finger, Hubert	Fayetteville	Washington	Arkansas
Friend, Helen	Fayetteville	Washington	Arkansas
Gilbrech, Raymond	Palmer	Monroe	Arkansas
Gill, Melba	Fayetteville	Washington	Arkansas
Gillespie, Mary	Fayetteville	Washington	Arkansas
Gollaher, Irene	Fayetteville	Washington	Arkansas
Griffith, Bill	Fayetteville	Washington	Arkansas
Hale, Arthur	Fayetteville	Washington	Arkansas
Hansard, Fred	Fayetteville	Washington	Arkansas
Hart, Alton	Fayetteville	Washington	Arkansas
Harding, Mary Frances	Fayetteville	Washington	Arkansas
Harding, William	Fayetteville	Washington	Arkansas
Harper, Ida Lee	La Pile	Union	Arkansas
Hathcock, Loyce	Lincoln	Washington	Arkansas
Henderson, Lee	Fayetteville	Washington	Arkansas
Henley, Ben C.	St. Joe	Searcy	Arkansas
Hester, Ralph	Evening Shade	Sharp	Arkansas
Hickey, Jo	Fayetteville	Washington	Arkansas
Hinshaw, Edyth	Springdale	Washington	Arkansas
Hogge, Russell	Fayetteville	Washington	Arkansas
House, Amos	Johnson	Washington	Arkansas
Huddleston, Milburn	Fayetteville	Washington	Arkansas
Hughes, Stephen	Newbury	Missouri	Missouri
Irby, Ruby	Fayetteville	Washington	Arkansas
Jackson, James	Fayetteville	Washington	Arkansas
Jacobs, Vera	Paris	Logan	Arkansas
Jeffery, Gordon	Fayetteville	Washington	Arkansas
Jewell, Margaret	Fayetteville	Washington	Arkansas
Johnson, Bonnie	Fayetteville	Washington	Arkansas
Johnson, Ruby	Johnson	Washington	Arkansas
Johnson, Opal	Springdale	Washington	Arkansas
Johnson, Tonsie May	Fayetteville	Washington	Arkansas
Jones, Henry	Fayetteville	Washington	Arkansas
Ladd, Virginia	Fayetteville	Washington	Arkansas
Ledgerwood, Violet	Paris	Logan	Arkansas
Lamb, Tossye	Leola	Grant	Arkansas
Latimer, Dorothy	Fayetteville	Washington	Arkansas
Latimer, Elizabeth	Fayetteville	Washington	Arkansas
Lea, King	Fayetteville	Washington	Arkansas
Lea, Robert	Fayetteville	Washington	Arkansas
Liebolt, Frederick	Fayetteville	Washington	Arkansas
Leicham, John	Bentonville	Washington	Arkansas
Lewis, Gus	Fayetteville	Washington	Arkansas
Lively, John	Little Rock	Pulaski	Arkansas
Lively, Gladys	Springdale	Washington	Arkansas
Lively, Grace	Springdale	Washington	Arkansas
Lucas, Ruth	Fayetteville	Washington	Arkansas
McAdams, Claude	Fayetteville	Washington	Arkansas
McCatherine, Maxine	Fayetteville	Washington	Arkansas
McCatherine, Thelma	Fayetteville	Washington	Arkansas
McCastlain, Maurice	Holly Grove	Monroe	Arkansas
McGaugh, Lloyd	Winslow	Washington	Arkansas

Name	City	County	State
McNabb, Horace	Fayetteville	Washington	Arkansas
McNabb, Helen	Fayetteville	Washington	Arkansas
McQueen, Dicie	Springdale	Washington	Arkansas
May, Hazel	Fayetteville	Washington	Arkansas
May, Wendell	Fayetteville	Washington	Arkansas
Miles, Gertrude	Fayetteville	Washington	Arkansas
Miles, Baxter	Fayetteville	Washington	Arkansas
Moffitt, Annie	Fayetteville	Washington	Arkansas
Montgomery, Lucille	Exeter	Barry	Missouri
Moore, Jerome	Fayetteville	Washington	Arkansas
Nakdimen, Hiram	Fort Smith	Sebastian	Arkansas
Nance, Edna May	Fayetteville	Washington	Arkansas
Nance, Isabell	Fayetteville	Washington	Arkansas
Park, Ada Elizabeth	Fayetteville	Washington	Arkansas
Parker, Frances	Fayetteville	Washington	Arkansas
Parker, Clela	Fayetteville	Washington	Arkansas
Parsley, Joyce	Fayetteville	Washington	Arkansas
Pettigrew, Georgia	Fayetteville	Washington	Arkansas
Phipps, Virginia	Fayetteville	Washington	Arkansas
Phillips, Julia	Fayetteville	Washington	Arkansas
Pond, Jewell	Fayetteville	Washington	Arkansas
Posey, Wynema	Fayetteville	Washington	Arkansas
Pugh, Bernice	Fayetteville	Washington	Arkansas
Pugh, Wilkes	Fayetteville	Washington	Arkansas
Pyle, Lester	Ratcliff	Logan	Arkansas
Renner, Maurice	Fayetteville	Washington	Arkansas
Renner, Welton	Fayetteville	Washington	Arkansas
Rudolph, Marguerite	Fayetteville	Washington	Arkansas
Ruckman, Chas.	Fayetteville	Washington	Arkansas
Ruckman, Pat	Fayetteville	Washington	Arkansas
Savage, Franness	Fayetteville	Washington	Arkansas
Scamster, Leona	Fayetteville	Washington	Arkansas
Sharp, Linn	Fayetteville	Washington	Arkansas
Shaw, Tillman	Fort Smith	Sebastian	Arkansas
Sidel, Ellen	Mitchell	Washington	South Dakota
Smith, Frank	Fayetteville	Washington	Arkansas
Smith, Fred A.	Springdale	Washington	Arkansas
Smith, Mary E.	Fayetteville	Washington	Arkansas
Steagall, J. D.	Frankston	Anderson	Texas
Stephenson, Jack	Bellville		Kansas
Stout, Rhue	Fayetteville	Washington	Arkansas
Thompson, Hazel	Fayetteville	Washington	Arkansas
Tarver, Wilbur	Star City	Lincoln	Arkansas
Thomas, Marie	Fayetteville	Washington	Arkansas
Thompson, Cecil	Fayetteville	Washington	Arkansas
Thompson, Clinton	Fayetteville	Washington	Arkansas
Toaz, Gretta	Fayetteville	Washington	Arkansas
Toaz, Lillian	Fayetteville	Washington	Arkansas
Walker, Joe	Fayetteville	Washington	Arkansas
Warren, Mildred	Fayetteville	Washington	Arkansas
Weir, Opal	Fayetteville	Washington	Arkansas
Whinnrey, Charlie	Wheeler	Washington	Arkansas
Whitcomb, Leta	Fayetteville	Washington	Arkansas
Winkleman, Chas.	Fayetteville	Washington	Arkansas
Williams, Virginia	Fayetteville	Washington	Arkansas
Wolf, Geo.	Fayetteville	Washington	Arkansas

SUMMARY

1920-21

<i>College of Arts and Sciences:</i>		377
Graduates	4	
Seniors	22	
Juniors	36	
Sophomores	85	
Freshmen	148	
Specials	51	
Music	16	
Pre-Medicals	15	
<i>College of Education:</i>		172
Graduates	1	
Seniors	17	
Juniors	13	
Sophomores	51	
Freshmen	83	
Specials	7	
<i>College of Engineering:</i>	172	270
Graduates	1	
Seniors	19	
Juniors	24	
Sophomores	47	
Freshmen	62	
Specials	117	
<i>College of Agriculture:</i>		147
Graduates	1	
Seniors	12	
Juniors	11	
Sophomores	36	
Freshmen	60	
Specials	27	
Total		966
Duplications		26
Fall, winter and spring terms		940
Summer Session		508
Citizenship School for Women		57
Rural Life Conference		314
Cotton Grading Class		48
University High School		158
General Extension Courses		62
Correspondence Courses		181
Agricultural Short Course		1045
Metermen's Short Course		44
Winter Farmers Short Course		229
Grand Total		3586

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